DOCUMENT RESUME

ED 436 472 SO 031 276

AUTHOR	Livermore, Joan, Ed.
TITLE	More Than Words Can Say: A Set of Arts Literacy Papers.
INSTITUTION	Australian Inst. of Art Education, Melbourne.
PUB DATE	1997-00-00
NOTE	87p.
AVAILABLE FROM	Australian Centre for Arts Education, University of Canberra, Faculty of Education, Canberra, Australia, ACT 2601, Web site: <http://education.canberra.edu.au/centres/acae>.
PUB TYPE	Collected Works - General (020)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	*Art Education; Art Teachers; Dance; Design; Drama; Elementary Secondary Education; Foreign Countries; Music; Visual Literacy
IDENTIFIERS	Art Literacy; Australia

ABSTRACT

The word 'literacy' is a familiar one in relation to the forms of expression and structure of verbal language. In this collection of papers the definition of literacy is expanded as it can be applied to individual art forms of dance, drama, media, music, visual art, and design. These art forms are those specified as the subjects forming the Arts Key Learning Area in Australian schools. The writers have approached the topics of arts literacy from their own experiences as artists and educators. The purposes of the papers are to stimulate discussion among teachers of the arts and other subjects and to raise an awareness of the potential for the arts to enhance learning across the curriculum. The following papers are included: (1) "Introduction," (Joan Livermore); (2) "Dance Literacy," (Ralph Buck); (3) "Drama Literacy," (Robin Pascoe); (4) "Music Literacy," (Margaret S. Barrett); (5) "Media Literacy: Media Literacy and the Information Age," (Robyn Quin); (6) "Visual Literacy," (Lee Emery; Adele Flood); (7) "Design Literacy: Process and Product," (Keith Russell; Kathy Grushka; Howard Middleton). (Author/LB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 436 472

MORE THAN WORDS CAN SAY

A Set of Arts Literacy Papers

Australian Institute of Art Education
Faculty of Education
University of Canberra
ACT 2601

(1997)

http://education.canberra.edu.au/centres/acae

SO 031 276

J. Livermore

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

PREFACE

The arts can play several different roles in education. The prime function of arts education is to introduce students to the arts world - a world where they are able to learn about dance, drama, media, music, visual art and design and, from various arts experiences, develop their own artistic capabilities. Through these experiences, they become familiar with the symbol systems in which artistic ideas are expressed and acquire an understanding of arts processes and practices. However, the richness and complexity of learning in the arts context also has value beyond the specific arts subjects and can facilitate personal and social development, learning in other curriculum areas and the development of a range of skills and understandings that can be applied in vocational and other life situations.

The arts can function as modes of communication. Creative ideas are expressed through visual images, sound, movement and drama and, with the assistance of technology, are presented in various forms in the electronic media. While humans usually communicate verbally, they also use the arts to express their feelings. On the one hand, body language, vocal inflection and graphic representation can enhance verbal interaction, but arts expression can also present ideas and meanings that are embedded within the art form itself. It is this notion of the arts as languages that is explored in this collection of papers.

The word 'literacy' is a familiar one in relation to the forms of expression and structure of verbal language; in these papers, the writers expand on 'literacy' as it can be applied to the arts languages.

The idea for the papers grew out of a project conducted by the National Affiliation of Arts Educators (NAAE) with the assistance of the Commonwealth Department of Employment, Education, Training and Youth Affairs. The focus of the project was to promote the use of new communications networks by teachers of the arts and to link the work of arts educators to EdNA - the Education Network Australia, a national link between educators in all sectors. While much of the project was devoted to the technical aspects of setting up home pages, email networks and discussion groups, a particular focus of the teachers involved was on the effects of this new technology on teaching and learning. The rapid introduction of new information technology into schools will undoubtedly have a great impact on student learning in the future and, in particular, on the ways in which students access knowledge and information. Although great efforts are being made to improve levels of verbal literacy in schools, many educators believe that the new modes of electronic communication will demand a much broader range of literacy and perceptual skills. Information is now presented in many forms other than words, and it seems to make sense that we should find out more about the ways in which people interpret information presented in these other forms. It is obvious that a great deal of research is needed before any claims can be made regarding the role of arts education in promoting literacy skills in the IT environment, but this set of papers is a step towards understanding the complexities of the perceptual, cognitive and emotional processing that occurs in the production and interpretation of meaning in artistic

modes of expression.

The papers in this collection attempt to define what is meant by 'literacy' in each of the individual art forms of dance, drama, media, music, visual art and design. These art forms are those specified as the subjects forming the Arts Key Learning Area in Australian schools. Each writer has approached the topic of arts literacy from their own experiences as artists and educators. It is hoped that the papers will stimulate discussion among teachers of the arts and other subjects, and that they may raise an awareness of the potential for the arts to enhance learning across the curriculum.

I wish to thank the writers for their excellent contributions. As a collection, the papers give a fascinating overview of the arts as languages, of their similarities and differences. They raise fundamental philosophical and psychological issues that highlight the complex interactions between areas of learning, interactions that tend to be lost in curriculum models where subjects are separated and categorised into discrete learning areas.

Joan Livermore, Director

Australian Centre for Arts Education

INTRODUCTION

More Than Words Can Say

It is widely recognised that proficiency in English literacy is of major importance for each individual's personal, social and cultural development and that such proficiency also is crucial to the quality of civic and economic contributions to Australian society. Inadequate levels of reading, writing and oral communication have a personal cost in reduced opportunities to participate fully in Australian society and reduced employability when students leave school. (Masters and Forster, 1997, p. 1)

The above statement from Mapping Literacy Achievement, the report on the results of the 1996 National School English Literacy Survey, sets out the platform on which the Commonwealth government has based its national literacy policy. This survey was taken as a preliminary step in the government's campaign to improve literacy standards in Australian schools and mapped student achievement in (i) Reading and Viewing, (ii) Speaking and Listening, and (iii) Writing. While the results of the survey showed some variation in the levels of achievement, there was considerable debate over whether this variation amounted to what was labelled by government politicians as a literacy 'crisis'. Many educators doubted that the survey and analysis of results gave a true representation of the full range of literacy in Australian schools and, in particular, whether the conclusions drawn from the study ignored some of the key social and cultural factors that impact on students' literacy achievements.

Particular concern was expressed by members of the Australian Education Union for the diminishing support in schools for students most at risk - students in poverty, Indigenous students, students for whom English is their second language and students with a learning disability (Burrow and Martin, 1998). Nevertheless, the government's response to the survey findings has been to set in place a national testing program which will regularly monitor student achievement in reading, writing and spelling.

A Broad View of Literacy

There is general concern that current literacy education policy is too narrow and does not take into account the rapidly changing communication environment. "In the late 20th century, literacy is already very different from what it was at the turn of the century, in the middle of the century, or even some 20 or 30 years ago" (Christie, 1997, p. 16). New modes of communication use much more than written text. The interpretation of graphic images, colour, sound and film demands a broader range of literacy and perceptual skills than those required by the essentially verbal language which is the focus of education programs to-day. Fichter (1991) makes a strong case for broadly based literacy strategies when she proposes that

BEST COPY AVAILABLE

> *As we seek multicultural literacy, let us also seek multi-literate culture and realize that art[s] literacy and computer literacy are both powerful and desirable languages, operating sometimes in different psychic neighborhoods but both capable of opening the "doors of perception." (p.4)*

Elliott Eisner (1997) considers literacy to be "a way of conveying meaning through and recovering meaning from the form of representation in which it appears" (p. 353) and reinforces Fichter's proposition by stating

> *we ought to be interested in developing multiple forms of literacy. Why? Because each form of literacy has the capacity to provide unique forms of meaning, and it is in the pursuit of meaning that much of the good life is lived. (p. 353)*

The dominance of television in children's lives prompts the visual art educator, Duncum (1993) to argue that "the single most important set of cultural skills today is the critical examination of the interconnections between words, pictures, performance and music to produce meaning in television" (p. 8). Interestingly, Phillip Adams (1998), the prominent journalist and commentator on social and cultural issues, goes to the extreme in proposing that India, a country where the majority of people are incapable of reading the newspaper, "will become the first modern society to leap-frog over literacy". In that country the computer and TV have become the major transmitters of communication and information, and he claims that "business is booming".

Teaching for Multimedia Literacy

If Adams' scenario is indicative of the future, we need to know more about the ways people process information when it is presented in different modes and how they make meaning from different symbolic forms of expression. Salomon (1997) explores the difference between viewing the film Out of Africa and reading the novel, or from listening to an African storyteller rather than actually wandering through Kenya. He points out that "different forms of representation have what philosophers call different fields of reference" p. 377), and they address different aspects of the world around us. He comes to the conclusion that "the 'reading' of different symbolic forms of representation requires different sets of mental skills and capacities" (p. 377).

It is generally accepted that the identification of students' aptitudes and learning styles and the adaptation of teaching strategies to them are basic principles of good teaching. The Australian Council of State School Organizations calls for "a diversity of approaches to literacy development, to cater for the different backgrounds, interests and learning styles of all students" (Morgan, 1998, p. 24). Boix Mansilla and Gardner (1997) believe that "educators face the challenge of devising a variety of 'entry points' that honor each student's idiosyncratic ways of representing the world" (p. 385). The use of multiple symbol systems is accepted as an essential feature of adaptive teaching by Snow (1997) who maintains that "only rarely does instruction in any domain rely purely on one symbol system alone" (p. 355).

Those working in the field of new technologies were quick to see the potential for new,

innovative teaching resources. Strommen and Lincoln (1992) chose the term "child-driven learning environment" to describe a context where

> *computers, video, and other technologies engage children with the immediacy they are used to in their everyday lives. ...Technology also allows for the repurposing of pre-existing educational materials across media formats: print, static illustrations, still and digital photographs, digital audio, still and motion video, still and motion film, animations, computer graphics and hypermedia can all be accessed and combined in novel ways. (p. 3)*

The influence of new technology is certainly apparent in the proliferation of contemporary teaching resources which rely increasingly on multimedia presentation.

Interpretation of Meaning in the Multimedia Environment

The multi media environment of new information technology uses all the modes of artistic expression to convey information. Visual images, music and sound, dramatic presentation, and movement are all important elements conveying meaning of their own, while interacting with each other and with text to produce complex, extended webs of meaning. A range of perceptual processing is required to interpret these messages fully.

The ways that meaning is constructed in this medium are closely allied to artistic processes and production. Aspin (1995), the educator and philosopher, is adamant that arts education has an essential role in developing those aspects of communication that are graphic and non verbal. Freedman (1997) cautions against the limiting approach to what is often called "visual literacy" as one that simply means the semiotic reading of signs and symbols - a structuralist analysis of literary texts that tends to narrow visual meaning. Like Aspin, he also supports "a broad view of creative production and interpretation in relation to multiple meanings and visual qualities...if we are to understand and teach about the use of images in contemporary life" (p. 7). This approach would depend upon students experiencing an art education that included both the production and viewing of technologically produced images and where teachers "pay increased attention to the interpretive and critical analysis of imagery and other information" (p. 8). It is only through a knowledge of artistic production and criticism that students will be able to evaluate manipulated images and relate them to what is "real". The artist's predilection for disrupting reality is nowhere more evident than in contemporary video and TV production.

Even in an art form like drama where verbal language is a major element, the dramatic process introduces other perspectives that can affect the meanings derived from that language. For example, dialogic interactions are dynamic and open and, in contrast to the monologic nature of written text, offer interpretive choices to audiences. These interactions are more fluid and less fixed, and vary according to character and dramatic context. (Edmiston, 1994)

If each form of representation tells us something different about the world around us, we need to build frameworks for interpreting information in different formats. Salomon (1997) maintains that

> *the meanings we derive or construe during human communication are mainly a function of the mental ("constructivist") activity we engage in, strongly colored by the knowledge structures ("schemata") we already possess and bring to bear on the new information. ...For much may depend on the richness and organization of the knowledge schemata one brings to bear on the incoming information. (p. 377)*

It would therefore seem to be essential to equip students with the skills to process information in different symbolic forms, using strategies that grow out of the structural and aesthetic qualities that underpin these forms of expression.

The Essence of Arts Literacy

At this point it is important to clarify the meaning of the term 'arts literacy'. Some may assume that it refers to the technical terms associated with artistic elements and structures. Others may use the term in relation to the reading and writing of notation associated with music and dance, or dramatic scripts. However, in this context, the language of the arts is embedded in the mode of expression of each art form. That is, ideas are expressed through movement, role play, musical sound or visual images and these ideas may not readily be transferable to verbal language. As Hirst (1974) states, "works of art are indeed artistic statements, stating truths that cannot be communicated in any other way" (p.153).

The arts educator, Bennett Reimer (1994), proposes that musical performance can be conceived as an act of intelligence, "an endlessly challenging and diverse mode of intelligence - of meaning making and meaning sharing" (p. 12) He sees the musical mind manifested in the body's actions and these actions consisting of 'thought as act or act as thought'. Shirley McKechnie (1996), the dance educator, believes that we are "still being intimidated by the power of established modes of knowing in our school systems" (p. 4). She mirrors Reimer's view when she states "Its [ie dance's] value lies in a way of knowing which is both sensory and aesthetic...in bones and nerves and muscles, and in the exercise of imagination, aesthetic discrimination and skill" (p. 4).

Furthermore, when we move away from the representational view of the arts as illustrating ideas to one which treats works of art as ideas themselves, the development of thinking skills can be vastly expanded. Tishman and Perkins (1997) present a point of view that is usually ignored in school teaching:

> *Language about thinking is mostly language in the familiar sense of words and sentences. But certainly people think in many other languages of mathematics, or music, or visual images, if one can call these languages in a metaphorically extended sense. More properly, people think in many symbolic vehicles. (p. 374)*

Literacy Skills for Arts Languages

The "reading" and "writing" of arts languages take place within artistic processes. The reading of a performance work is not simply a matter of looking at the notation or reading a script, and then analysing and interpreting the intended meaning. In the performing arts the equivalent of the literary text is the performance itself and the audience "reads" the performance as an experience and constructs meanings which may change with each new performance. The text becomes a visual image in a painting or drawing and, like performance art, is "read" by the viewer, not necessarily for its representation of the real world, but as a statement of ideas embodied in visual imagery.

The producers or writers of arts languages must work within the semantic structures of the specific form of arts expression. They are using the same materials as the creators of art works and must make qualitative judgements accordingly. Any visual, dramatic or musical component of a multimedia product must fulfil artistic criteria and, in fact, the effectiveness of such components is often directly linked to their artistic quality.

Aspin (1991) sees art works, objects, performances as "the incarnation of an artist's meaning, whose publication provokes an intelligent and informed response from an audience concerned to seek information, illumination and enrichment from the disclosures they are ready for it to precipitate" (p. 7). He calls this the "living encounter" that takes place in conversations between producer and perceiver.

The living encounters that are now an integral part of our interface with the rest of the world through information technology demand more than just an ability to read, write and spell verbal language. At the functional level, decoding of verbal text requires an understanding of spelling, vocabulary and linguistic structures, and the capability to interpret the ideas expressed. Equally, the decoding of texts using other symbolic forms requires similar semantic processes. But just as the acquisition of verbal literacy depends upon carefully structured education programs, it follows that the development of literacy in other forms of expression requires equivalent training. In the absence of such training, students can only make vague, impressionistic judgements of much of what they see and hear. With appropriate education in the arts they can not only make meaning, interpret and respond to such forms of communication, but will develop the ability to "think" in different modes and express a much wider range of ideas and feelings through multiple literacies.

The impact of new information technology on human communication will be profound, and the rapid introduction of IT into schools will undoubtedly bring about fundamental changes in student learning. This new technology will transform the delivery of education programs and revolutionise access to knowledge and information. The Commonwealth government's goal of "providing young people with the key literacy skills that will enable them to make the most of their education, employment and training opportunities" (Kemp, 1997, Preface) can only be achieved if the full spectrum of literacy is addressed in education policy. National testing and funding for literacy programs in schools will have limited effect if this is not done.

References

Adams, P. (1998) *India aims to pass the screen test*. Weekend Australian, April 11, 1998.

Aspin, D. (1991) *Art, Articulation, communication and education - the challenge for educators*. The Eleventh Leon Jackman Memorial Lecture. Australian Art Education, 15 (2)

Aspin, D. (1995). *Models of arts education: design and delivery*. Keynote address at the Australian Arts Education Conference - 'Creative Nation...The Arts leading the way.

Boix Mansilla, V. and Gardner, H. (1997) '*Of kinds of disciplines and kinds of understanding*'. Phi Delta Kappan, January 1997.

Burrow, S. and Martin, R. (1998) *Manufacturing a crisis for political gain. literacy - not a black & white issue*. Australian Democrats.

Christie, F. (1997) '*Literacy myths*'. Education Review, October, 1997.

Duncum, P. (1993) '*Reconceptualising unity and diversity in the arts*'. Interacta, 1/93.

Edmiston, B. (1994) '*More than talk: a Bakhtinian perspective on drama in education and change in understanding*', n.a.d.i.e. journal, 18 (2)

Eisner, E. (1997) *Cognition and representation*. Phi Delta Kappan, January 1997.

Fichter, N.S. (1991) '*World without metaphor*'. Arts Education Policy Review. March/April 1991

Freedman, K. (1997) '*Teaching technology for meaning*'. The Journal of the National Art Education Association, 50 (4)

Hirst, P. (1974) '*Literature and the fine arts as a unique form of knowledge*'. Chapter in Knowledge and the Curriculum, London, Routledge and Kegan Paul.

Kemp, David. (1997) *Literacy Standards In Australia*. Commonwealth of Australia.

McKechnie, S. (1997) *Thinking Dancing: Matters of Art, Value, Doing and Knowing*. Paper presented at the International Symposium on the Arts and Education, Hong Kong.

Masters, G. and Forster, M. (1997) *Mapping Literacy Achievement. Results of the 1996 National School English Literacy Survey*. Commonwealth of Australia.

Morgan, I. (1998) *What we should be doing. literacy - not a black & white issue*. Australian Democrats

Reimer, B. 1994. ' *Is musical performance worth saving?'* Arts Education Policy Review 95 (3)

Salomon, G. (1997) '*Of mind and media. How culture's symbolic forms affect learning and thinking'*. Phi Delta Kappan, January 1997.

Snow, R. (1997) '*Aptitudes and symbol systems in adaptive classroom teaching*'. Phi Delta Kappan, January 1997.

Strommen, E. and Lincoln, B. (1992) *Constructivism, Technology, and the Future of Classroom Learning*. Internet.

Tishman, S. and Perkins, D. (1997) '*The language of thinking*'. Phi Delta Kappan January 1997.

Joan Livermore is Director of the Australian Centre for Arts Education and Senior Lecturer at the University of Canberra. She was National President of the Australian Society for Music Education and Chair of the NAAE for 5 years

Dance Literacy

by Ralph Buck

Introduction

Defining Dance

The Current Focus on Literacy

Defining Literacy

Dance Literacy

Dance Literacy in the Education Context

Dance Literacy and Technology

Summary

Ralph (B.Ed. M.A. Dance Studies, Univ. Surrey, U.K.) is the Senior Education Officer, Dance Education with the Queensland Department of Education. Ralph has been responsible for the development and implementation of the Queensland dance curriculum and was the writer of the Dance Strand in the National Statement and Profile for the Arts in Australia.

Ralph has given lectures at Griffith University, University of Queensland, and Queensland University of Technology to name a few. Ralph is the National Vice President of the Australian Dance Council - Ausdance.

Ralph has performed with Amici Dance Theatre Co., London, Expressions Dance Co., Brisbane, and with the Cherry Herring Dance Collective, Brisbane. Ralph's passion is education and the role of dance in education.

Introduction

This discussion paper analyses the current definitions and uses of the term 'literacy' within national and state/territory education systems' strategic policies and curriculum. It unpacks the curriculum discipline of dance education in order to establish the validity of the term 'dance literacy' and discusses the place of dance literacy within the aesthetic literacies framework in schools. The paper briefly looks at the impact of technology and raises questions about the future impact of technology on dance and the impact of dance on technology.

Dance is a discipline of study in its own right and as a way of 'knowing' it involves unique concepts and skills. To be dance literate is to be able to comprehend the problems and concerns of choreography, performance and appreciation. Further aspects of dance literacy include placing the dance in its historical, cultural and socio-political context, acknowledging the function of that dance and consciously viewing the dance with an awareness of ones own context and life experiences.

Providing all students with opportunities to realise their potential, to achieve success, and to experience a breadth of curriculum are foundation principles of a sound general education. Developing literacy standards is currently a priority within all Australian schools and an important objective to achieve. This paper discusses the validity of dance literacy as one of the 'literacies' and explores its value in terms of recognising the diversity of students range of needs and abilities, the cross-curriculum benefits initiated from participation in dance and the personal benefits gained from participation in dance.

Defining Dance

Dance involves the communication and expression of information, ideas, feelings and values through gesture and movement. As in language, there are many different forms of dance and many different symbols in terms of gesture and movement that carry meanings and interpretations of culture. While dance is not a 'language,' it does have the capacity to function as a language because it is a communication system that may utilise gesture and movement as symbols.

Defining dance is elusive in that dance, and meanings gained from dance, are continually changing, with new forms and styles of dance evolving. The following rationales from the senior syllabuses in dance of several education authorities provide a thorough overview of the current perceptions of what dance is.

- Dance is a human activity of ancient tradition and an evolving form of expression which is fundamental to the human condition. Different cultures throughout history have refined and manipulated movement to communicate meaning. As an aesthetic means of ordering movement into an expressive code, dance involves structuring gesture and motion to capture and convey ideas, images and feelings, and uses the human body as the instrument of communication ....

  Queensland Board of Senior Secondary School Studies

  Senior Syllabus in Dance 1997

- Dance is an art form using the body as the instrument of communication and creativity. Dance education involves students in making, presenting and appraising dance and in learning about the artistic, social, theatrical, religious, historical and cultural contexts in which dance occurs.

Dance experiences support individual growth, enhancing students' cognitive, sensory, expressive, aesthetic, physical and social development.....

Australian Capital Territory,
Board of Senior Secondary School Studies.

Dance Course Framework 1995

- Dance has been an integral component of every known culture, providing them with a means of expression and an extension of work and lifestyle patterns. It has accompanied the evolution of humanity as an integral part of the history of human movement, culture and communication.

As a subject within the Creative Arts, dance is a unique art form where the body is the instrument for non-verbal communication and self-expression. It is of special educational value to an individual's total development.

Dance education is more than learning how to dance...

NSW Board of Studies.
2 Unit Dance Syllabus 1992

- Dance is the language of movement. It is the realisation of the body's potential as an instrument of expression. Throughout history and in different societies, people have explored the dancer's ability to give new meaning to social and personal experience. Dance is a part of culture, of a tradition passed down from one generation to the next, largely through practical teaching. The study of dance provides students with an introduction to this tradition and an opportunity to explore the potential of movement as a medium of creative expression .....

Victorian Board of Studies
Dance study design, 1994

All of these definitions represent a breadth of critical discussion from around Australia. Within the context of this paper it is worthy to note that the above syllabus rationales while written by dance teachers and academics are edited and approved by a range of educational administrators such as school principals, Curriculum Directors, Regional Executive Directors and University academics who do not have a dance background. The 'syllabus approving committees' throughout Australia who ensure a degree of parity between syllabuses all acknowledge the value of dance education and in particular the role of dance in developing communication abilities.

If communication is the core issue in developing literacy skills (Freebody, 1997) then it could be assumed that the education systems throughout Australia would endorse the contribution that

BEST COPY AVAILABLE

dance brings to the development of literacies. It is therefore an ongoing contradiction that the majority of all literacy projects focus only upon reading and writing. This issue alone is worthy of considerable research and needs to be attended to if Australia is serious about advancing education beyond the " ... 'Back to Basics' policy, which aims to drill kids in state schools in the old print culture skills." (Spender, 1997)

Common to all syllabus definitions of dance in Australia is the reference to the communication and expression of ideas, values ... : use of movement as an expressive code; dance as a symbol system; ...and, the content organisers of making, performing and appraising dance.

Dance uses gesture and movement to implicitly and explicitly convey meaning. The crafts of creating, presenting and reading meanings in dance are explicitly articulated and conceptualised within developmental continuums in the primary, secondary and tertiary education sectors. The dance specific content organisers titled choreography, performance and appreciation focus upon how meaning is created, what movement material best communicates intent, why movement communicates specific meaning within specific contexts and so on. Through developing abilities within choreography, performance and appreciation students develop dance literacy abilities.

It is through the creative process of choreography that "students learn how patterns of movement are combined and structured in space with dynamics and impact to create meaning, to express personal or societal ideas and to tell narratives". (Queensland BSSSS Senior Syllabus in Dance, 1997). The act of choreography includes the selection, combination manipulation, structuring of movement and gesture that creates the 'expressive code'.

The presentation or performance of the movement requires another set of specific skills and abilities to communicate the meaning or intent of the dance accurately. "In performance, unique technical and expressive demands of dance are developed. Students learn to convey ideas or a narrative to an audience. They develop their personal expressive power to convey meaning through dance". (Queensland BSSSS Senior Syllabus in Dance 1997)

The reading of the dance or dance appreciation involves "understanding how and why the dance is made, the techniques used in its design and the stylistic elements that place it in a particular historic and cultural context". (Queensland BSSSS Senior Syllabus in Dance 1997)

The skills involved in choreographing, performing and appreciating dance are specific and discrete in their nature. As such they can be taught and developed to the extent that 'master' exponents of these skills are revered as artists with highly honed skills that are prized and valued within all education sectors and within the wider community.

The Current Focus on Literacy

In every Australian state/territory Education system there is a plethora of literacy programs. Some of these include: Literacy Focus Schools Program - South Australia; Early Assistance

literacy plans - South Australia; Literacy & Numeracy Fund (1996/1997) - Australian Capital Territory; system level assessment and reporting in literacy and numeracy - Australian Capital Territory; The Literacy and Numeracy Strategy 1994-1998) - Queensland; Year 2 Diagnostic Net, the Queensland Year 6 test (literacy & numeracy) -Queensland; Reading Recovery program - Queensland; the Junior Secondary Literacy and Numeracy Investigative Study - Queensland; Education Department of Western Australian Literacy Strategy - Western Australia; Literacy Policy 1993 (a statewide priority) - Tasman; and so on. Similarly schools in the independent and Catholic sectors have as their focus, developing, assessing and reporting upon literacy. The improvement of literacy is a catchcry for education systems across Australia, government and private.

Within these systems and their literacy programs the term literacy has been defined and used to meet local expectations. My concern is that in an effort to fulfil expectations regarding literacy, it would be easy to emphasise the teaching of reading and writing rather than teaching for the improvement of literacies. Students today and in the future require literacies other than reading and writing (Rushkoff, 1997). Students have also developed skills in reading many literacies at once. For example, in 'surfing' TV programs students follow several story lines at the one time, and within current magazines visual texts and print texts of many sizes are overlayed whereby all the texts are communicating several messages. In educating for the future it is imperative that the range of literacies are acknowledged within schools and that pedagogy reflects and stimulates this range.

Defining Literacy

The focus of the National Literacy Policy for Australia is clear when it states:

> "The improvement of literacy for all Australians seeks to respond to personal and civic-cultural as well as economic needs" (Lo Bianco and Freebody, 1997)
>
> The National Literacy Policy for Australia was developed as a result of the July 1996 Meeting of the Ministerial Council of Employment, Education, Training and Youth Affairs where Australia's first national literacy goal was established. The goal states:
>
> "every child leaving primary school should be able to read, write, spell and communicate to an appropriate level". (Lo Bianco and Freebody, 1997)

Although it is the National Plan and National Literacy goal that is now given the major focus, one might say that it is a limited reading of this goal that shapes the current focus of the working definitions of literacy adopted by many if not all of the education systems; that is, the focus is upon reading, writing and spelling. Policy makers and educators need to stop and reflect upon this and ask the questions - is there more to developing literacy than reading, writing and spelling, and is the drive to fulfil perceived community expectations of literacy outcomes failing to recognise the variety of means open to educators in achieving that end?

There are variations within definitions of literacy, ranging from a focus on functional skills in reading and writing - the educational psychology model, to the broader view that contextualises the 'text' within social and cultural constructs. (Alloway, Davies, Gilbert & Gilbert 1996). It is of concern that the definitions of literacy used by government school systems (Office of the School Curriculum Council Queensland, 1996), do not adequately include scope for developing literacies beyond reading and writing. Indeed, the public at large also do not view literacy as anything other than reading and writing.

Undoubtedly defining literacy is problematic. This difficulty is outlined within Australian Literacies:

- Definitions of literacy are notoriously difficult to compose. Literacy is a social construct, a complex idea that means different things to different cultural groups at different times. Therefore literacy is a relative term and dynamic. While literacy is popularly understood to denote the ability to read and write prose and other print texts, it is an integrated complex of language and thinking processes and skills, incorporating a range of habits, attitudes, interests and knowledge, serving a range of purposes in different contexts

DSE/CEOV 1994

The Department of Education Queensland Literacy and Numeracy Strategy 1994-98 provides a thorough definition of literacy with further explanation of the key terms within the definition. This account of literacy stands out in that it provides for a range of literacies.

Department of Education, Queensland 1994

Literacy involves abilities of comprehending and composing spoken, written and visual texts commonly used by individuals and groups to participate fully, critically and effectively in a wide range of life roles.

To comprehend and compose, people construct meaning for personal and social purposes in a variety of cultural and social contexts.

Comprehending can integrate speaking and moving, writing and shaping in the production of texts.

Texts commonly used by individuals and groups include communications in:

- face-to-face situations, eg discussion, signing, stage performance, body language;
- print, eg books, braille texts, magazines, school textbooks, illustrations, diagrams, icons;
- electronic forms, eg computer, telephone, telecommunications' mass media, eg newspaper, radio, television, film

To participate fully, people need access to opportunities which develop and enhance their literacy potential and to language used for enjoyment.

To participate critically, people need to reflect upon the language they and others use to think, create, question and analyse.

To participate effectively, people need to identify, evaluate, and accept or challenge assumptions underlying various meanings, and to think and act independently as active and informed citizens.

This definition and consequent explanation presents a view of literacy that acknowledges a breadth of skills and intelligences. As the notes explaining the definition outline, there are many literacies, and texts may include print, electronic forms, stage performance and body language.

This definition recognises the scope and diversity of the literacies that exist and avoids the narrow perception of literacy as meaning reading and writing. Alloway et al (1996) and King (1996) also believe that many current interpretations of literacy are narrow. If the aim of improving literacy skills is about 'responding to personal and civic-cultural as well as economic needs' as stated by Lo Bianco, then the definition of literacy must be much broader.

- We need to expand the boundaries of literacy to ensure that it includes multiple literacies, cultural literacies (our own and others), technological literacies (cyberspace and computer literacies), critical literacies, visual literacies, aural literacies and oracies. Alloway et.al 1996

There are many literacies that take various forms "each appropriate for different social occasions, each constructed by that situation" (Alloway et al, 1996). Common to all definitions and explanations of literacy is the notion of communication. Within all forms of communication encoding and decoding (Freebody 1997) or composing and comprehending (Department of Education Queensland 1994) are the key processes. As such, dance as a form of literacy is as valid and accountable as any other form of literacy.

DANCE LITERACY

Dance literacy can be taught and is currently being taught in schools throughout Australia. The scope or potential for dance education as a meaningful contributor to the students education is best realised when dance is taught within the context of aesthetic literacy. Under the aesthetic literacy umbrella the scope for creating and comprehending dance that has communication as its main concern is vast.

Aesthetic literacy draws the attention of teachers and students to the influences that inform decision making, actions undertaken and views of oneself and others.

- Aesthetic literacy:
- derives directly from an awareness of our beliefs, our perceived reality, our insights into beauty and our background of cultural identity.
- enriches our experiences in life, and the environments to which we contribute.
- is concerned with the way our personal identity is enhanced and defined and with the nature of our behaviour as it relates to the quality of our lifestyles. In short, it is all about those 'living skills' and personal awareness essential for realising a satisfying and discriminating lifestyle.
- serves to integrate our personalities so that we may become sensitive, fully functioning, complete individuals to the limits of our potential.

- fosters personal growth through experiences that focus attention on personal observation and self-knowledge so we are more likely to be able to command and to integrate our mental, physical and emotional faculties and consequently cope better with the world around us.

- encourages the children to use all their senses as a means of developing cognitive skills essential for functional learning to occur.

- emphasises that learning should function as a means to personal growth, that is, the development of a well balanced individual capable of benefiting from the experiences offered by life.

(Department of Education, Queensland, 1984)

Aesthetic literacy is not solely developed through the arts experiences taught in schools. All discipline areas, incidental experiences, and environmental factors inform the development of the aesthetic literacy in each individual. However, education in dance and the other arts disciplines fosters the conscious development, discovery and application of complex cognitive and aesthetic functions in the process of creating presenting and appreciating meaningful and expressive 'texts'. Dance literacy contributes to the development of aesthetic literacy which in turn influences the way that the individual perceives the made and natural environments and acts within these environments.

In developing dance literacy within an aesthetic literacy framework it is essential to look beyond the encoding and decoding processes of choreography, performance and appreciation. In order to decode or read the many types of dance accurately, the initial function and context of the dance must be considered.

Like other literacies the chief concern of dance is the communication of information, ideas, and perceptions. The dance 'texte' (Rubidge, 1989) is created by the collection, manipulation and ordering of movement, gesture and imagery to give meaning. Comprehending the 'texte' involves decoding or interpreting the signifiers - the actual images and symbols used as the communicators, and the signified - the intended message of the 'textes' (Rubidge, 1989). Signifiers seldom have single meanings. "A single image may simultaneously point to its signified and act as a symbol around which a range of connotative meanings and metaphors cluster". (Rubidge, 1989)

A dance (the text) can be read but not in isolation from the socio-cultural and functional context in which it was developed. Nor can it be created and presented in a vacuum, as the current audiences values and attitudes will inform the reading of the dance. The viewer will bring to the dance a different set of experiences, points of views and histories that will inform their interpretation and valuing of the dance. As such many valid and reasoned interpretations of the signifiers and signified are possible. Essential to the reading of the dance text and the interpretation of the signifiers and further sub-texts is that the viewer can validate their interpretations and evaluations through a reasoned argument. Implicit to such reasoning is

knowledge (Best, 1992), knowledge of personal aesthetic values and knowledge of distinct modes of discourse and the new meanings drawn out by the interaction of these discourses.

All dance has a function. Someone has made the dance and it was made for a reason. Adshead (1981) identifies the functions that dance fulfils as being artistic, social and ritual. A dance may fulfil several functions and its function/s may change over time. For example, traditional dances from African cultures may have functions that are both social and ritual, while folk dances that were initially made and performed as social dances may now be presented in an artistic context with an artistic function. Traditional dance from Ireland being re-formed and presented as part of the 'Riverdance' production is an example here.

By acknowledging the function of the dance, the viewer is guided in discerning its form and its meaning. Similarly establishing the dances initial social, cultural and geographical context provides valuable information that prompts insightful and accurate decoding or reading of the dance. For example, knowing where and when Meryl Tankard choreographed her works allows viewers to ascertain the influences upon her work and make informed interpretations and evaluations of that work.

The reading of movements, gestures, looks and attitudes as metaphors or as sub-texts within a dance is most accurately achieved when the socio-cultural and geographical contexts are understood. Occasionally, knowledge of local events or issues allows an audience to decode another layer of meaning from a dance. How often does the situation arise when a visitor is surrounded by a local audience in which everyone around is smiling or laughing at an event on stage, yet the individual has not seen anything funny. The 'locals' have recognised a sub-text or another layer of meaning within the performance that required knowledge of the local context to read the meaning.

Another aspect of dance literacy is the use of specific terminologies and notation systems used to describe, analyse and record dance. The systematic recording, description and definition of ballet steps, initially by Pierre†Beauchamp 1636-1706 and then Carlo Blasis 1797-1878, initiated the development of what today is a rich, clearly defined and internationally understood ballet terminology. Rudolf Laban and Rudolf and Joan Benesh developed systems for notating dance in order to accurately record choreography. Both Labanotation and Benesh Dance Notation are internationally understood forms for notating dance and used throughout Australia.

Within the large variety of dance genres and styles, dance notations and dance analysis there are specific dance terms and vocabularies that are a part of dance literacy. Familiarity with these terms provides a 'way in' to the comprehension of the dance and a common vocabulary for discussing dance that is internationally understood.

Dance Literacy in the Education Context

Dance has been conceptualised into its component parts and is taught at primary, secondary and

tertiary levels of education. Outcomes that identify levels of understanding in dance have been identified within national education curriculum documents such as A Statement on the Arts for Australian Schools and The Arts - a Curriculum Profile for Australian Schools, and within state/territory curriculum documents. Dance is taught and assessed throughout Australia as a tertiary entrance subject that has equal weighting with other curriculum areas.

Throughout this paper the argument has been that there is not a 'literacy' but many literacies, that dance literacy is a valid form of literacy, that it is not immutable and that dance literacy can be taught. The value of acknowledging and supporting dance literacy within the education system can be summed up in the following key points:

- The inclusion of dance education in the curriculum recognises the diversity of students learning preferences needs and abilities. As such, students have greater chances of learning and therefore reaching academic goals. Not all students learn in the same manner using the same mediums of discourse. Gardner's work in researching 'the multiple intelligences' and identifying preferred learning styles has highlighted the importance of including within the students education, curriculum areas such as dance education that develop or demonstrate skills that would otherwise go undeveloped or unnoticed. (Gardner, 1993)

- On the whole, dance education involves enjoyable and fun activities that motivate students to learn. Irrespective of the dance specific outcomes from participation in dance, other major outcomes, invaluable in the classroom, include an increase in participation and attitudinal changes in behaviour. " ... arts experiences led to improvements in classroom attitudes and behaviour ... "(Fox and Gardiner, 1997).

- The flow on from behaviour and attitudinal change is that there may be more actual classroom time spent on curriculum activity rather than behaviour modification and that other literacies may actually improve as a result of including dance in the curriculum.

    - Coordinating the mastery of skills and subject matter across the curriculum, with the aesthetic arts as central as the verbal and mathematical arts, can, we believe, add tremendous 'insight' and power into the learning process. By insight we refer to the brain's abilities to exploit natural similarities in the component processes that underlie different skills that are being learned. It is our hypothesis that the processes innate to artistic/aesthetic learning have the potential to greatly impact overall ability and general academic performance.
      (Fox and Gardiner, 1997)

- The dance industry and the wider arts industry are a growing field for employment. Students studying dance education not only develop self esteem, fitness, presentation skills, self confidence, problem solving abilities, team working skills, belief in independent ideas, discipline and negotiation skills, all of

which are valued skills in any vocation, but they also develop dance industry skills that lead to employment in that vocational area.

Dance Literacy and Technology

Has technology impacted on how people interact with dance? Throughout history technological development has continually had an impact on the development of dance. For example: in the early nineteenth century, the evolution of the romantic ballet style was informed by the use of stage lighting, the use of trapeze like wire and the wearing of pointe shoes. These developments allowed choreographers greater scope in communicating their intent, performances became more spectacular and the creation of illusion assisted audiences to perceive 'the mythical dream worlds' that became a choreographic focus of the time. The advent of television and video is another example of the impact of technology on dance.

With increasing access to information, dance literacies will, I believe, evolve faster. People will become aware of a range of views on artistic issues from around the world, influencing their own choreography and writings. Specific technological developments with the internet, CD ROM and Motion Capture technology will provide improved dance education opportunities for distance education students, in that they will have access to moving images and specific dance education information at their own site. This technology is equally appropriate in the Open Learning University context, where for instance studio dance teachers may, in the future, enrol in and complete the greater part of a graduate certificate in dance that may ultimately improve their local dance business.

Technology has had an impact because of its ability to increase the exposure of dance to a much larger audience. Be it via the internet, television, videos or CD ROM, more people have access to a wide range of dance. This exposure may in part be responsible for a greater interest in dance as is evidenced by the large audiences at shows such as 'Tap Dogs' and 'Riverdance', and the inclusion of more and more dance in major arts festivals.

Creativity is fostered within dance education and within all arts areas, and it is the nurturing of this creativity that in turn will shape new means of communication via digital texts, video laser technology and information technology. This technology will inform if not drive education curriculum and pedagogical practice in the future.

Policy makers and politicians around Australia and the globe continually announce that 'Education is the way forward' or 'Education is the future'. I agree, it is. So why is it that in Australia, politicians emphatically endorse 'back to basics' education policies and dictums. If education is the way forward then education must focus on the future technologies, the creative means for presenting and receiving knowledge, and value the breadth of abilities, needs, interests and 'intelligences' that abound in youth.

Dance and the other arts are goldmines of educational endeavour and their potential for accessing

knowledge, communicating ideas and sharing information are yet, I believe, untapped within Australian education.

America and the United Kingdom may be addressing this very issue within an increasing focus upon education in their current political agendas.

- Along with Al Gore in the U.S., Blair (U.K.) knows that intelligence is the new form of property, and that ideas, and all the arts, are wealth generating sources of the future. So when it comes to the new technologies which are all about creativity, both leaders are determined that their countries should get a good start. (Spender, 1997)

In reference to Australia, Spender goes on to highlight the lack of policy that 'cultivates ideas', the lack of strategies for developing information technology products and marketing them, and the lack of vision for education and the role of information technology within it.

Dance literacy is about creating and reading meaning presented by the moving body - a three dimensional medium. The concepts, skills and processes bound up in developing dance literacy are the very literacy skills that I believe will inform the 'way forward in education', they are the literacy skills that will make connections with technology and with people.

Summary

In identifying and articulating the meanings of and issues within dance literacy this discussion paper has aimed to broaden perceptions of what 'literacy' is and what it means' to be literate. Current education policy at state/territory and federal level focuses upon improving literacy skills of all students. Policy makers and teachers are also concerned with providing opportunities in education for all students to achieve their potential. In acknowledging the various modes of 'knowing', such as dance, all students are given the maximum opportunity to achieve personal and systemic goals. It is important that educators in their rush to improve students literacy levels remember to acknowledge dance as a literacy, that like reading and writing is a means of communicating, expressing, interpreting and valuing ideas, information and feelings.

References

ACT, Board of Senior Secondary School Studies 1995. Dance Course Framework Years 11 and 12. Canberra.

Adshead, J. (1981). *The Study of Dance*. London: Dance Books Ltd.

Alloway, N., Davies, B., Gilbert, P., Gilbert, R., King, D. (1996). *Boys and Literacy: Meeting the*

challenge: Book 1: Introduction and Professional Development Units. Canberra: Commonwealth Department of Employment, Education, Training and Youth Affairs.

Best, D. (1985). *Feeling and Reason in the Arts*. London: George Allen and Unwin Ltd.

Department of Education, Queensland (1992). *Dance:Years 1 to 10 Dance Curriculum Guide*. Brisbane: Department of Education, Queensland.

Department of Education, Queensland (1984). *Literacy and Numeracy Strategy 1994-98*. Brisbane: Department of Education, Queensland.

Division of Special Education, Department of Education, Queensland. (1984). *Developing Aesthetic and Visual Literacy*. Brisbane: Department of Education, Queensland.

DSE/CEOV, (1994). *Keys to Life, Professional Development Program for Secondary Subject Teachers*. Melbourne: Department of School Education / Catholic Education of Victoria.

Fox, A. and Gardiner, M. (1997). *The Arts and Raising Achievement*. Conference Paper at the international conference - The Arts in The Curriculum. London: Department of National Heritage and the School Curriculum and Assessment Authority.

Freebody, P. (1997). *Literacy*. Brisbane: unpublished seminar.

Gardner, H. (1993). *Multiple Intelligences: The Theory in Practice*. New York: Basic Books.

King, D (1996). *Critical Literacies: Theory, politics and implications for teachers*. Boys and Literacy: Meeting the Challenge. Book 3 Supplementary Readings and Bibliography. Canberra: Department of Employment Education, Training and Youth Affairs.

Lo Bianco, J., Freebody, P. (1997). *National Literacy Policy for Australia*. Melbourne: Language Australia.

Lo Bianco, J., Freebody, P. (1997). *Australian Literacies: Informing National Policy on Literacy Education*. Melbourne:, Language Australia.

New South Wales, Board of Studies 1992. *Syllabus Years 11-12 Two Unit Dance*. Sydney.

Office of the School Curriculum Council, (1996). *Literacy & Numeracy in P-10 Curriculum Development in Queensland*. Draft Discussion Paper. Brisbane: unpublished.

Queensland Board of Senior Secondary School Studies 1993, *Senior Dance*. Brisbane.

Rubidge, S. (1989). *Semiotics. Dance Theatre Journal*, Vol.7. No.2, pp.45.

Rushkoff, D. (1997). *Screenagers: Children of the Remote Control*. The Weekend Australian.

April 19-20, 1997. pp. Syte 1 and 6.

Spender, D. (1997). *Not Such a Clever Country*. *The Weekend Australian*, June 7-8, 97 pp.Syte 4.

Victoria, Board of Studies (1994). *Dance: VCE Study Design*. Melbourne.

Drama Literacy

Arts Ed on EdNA Project • Drama

Overview

Robin Pascoe

Introduction	• Drama language in use - examples from practice • Statement of the concept of a unique drama language
Section 1 Arts Literacy	• Literacy • The contributions the Arts make to the acquisition and use of language • Arts literacy • A language model explored • An Arts languages model
Section 2 Drama Language	• Applying the Arts languages model for drama • Elements of drama language (with practical examples) • facial expression • gesture • movement and placement in space • movement in time • sounds and silences • words, ideas and emotions • Conventions of using drama language (with practical examples) • purpose • audience • structure • forms • Features of current use • linear and "all at once"

Section 3 Drama Language and Emerging Technology	The YAI (Youth Arts Incorporated) case study to lead into • Impact of technology on the ways drama language is used • cross overs to other arts forms • changing narrative structures • "all at onceness" • The value adding of drama language to the IT environment • use of "actors" and the metaphor of drama in IT • use of movement and sound • use of text and voice • adding the aesthetic to the technical
Section 4 Literacy Programs for "New Times"	• A broader and more inclusive definition of literacy • linking arts literacy and other literacy strategies • highlighting how arts language contributes to conventional literacy
Conclusion	• Why arts literacy is important - connections with what multi-sensory learning theories tell us about a broader literacy as a preparation for life in a technological society

Robin Pascoe is currently the Learning Area Superintendent for the Arts with the Education Department of Western Australia. He is President of the National Association for Drama in Education (NADIE Australia) and a board member of the National Affiliation of Arts Educators (NAAE). He was a member of the team involved with writing the National Statement and Profile for the Arts; he was also chair of the Arts Learning Area Committee developing the Arts Learning Area Statement of the Western Australian Curriculum Framework. He has delivered papers and workshops locally, nationally and internationally.

Introduction

A group of kindergarten students play in the dress up corner of the classroom. They use simple costumes and improvised props as they enter into familiar roles such as shopkeeper, teacher or elder. They use their faces in animated ways and make gestures to support the words they use or the roles they take on. They use movements and their voices to explore familiar human interactions and the world of their imaginations.

A group of year seven students have made an adaptation of May Gibbs' Gumnut Babies for performance to the year one students in their school. They have adapted words and ideas - and added a few of heir own; they have written songs and music, made costumes and sets, rehearsed and developed performance skills: all for the purpose of communicating through the language of drama. Their play entertains the younger students; it also informs them about the natural world

of animals and the ways we endow animals with human qualities; their work provides models of creative expression and, possibly, it changes the attitudes of their audience to issues such as environmental awareness.

Another group of students in year ten work with scripted drama and improvised drama to explore relationships based on their work with Romeo and Juliet both a version seen in theatre and the popular film. They work as a team collaboratively developing their performance, exploring ideas, developing skills and making connections to the ways performances of this drama text has changed over time which they have researched on the Internet through a visit to the Globe Theatre Project in London and the Oregon Shakespeare Festival site. They express a sense of enjoyment and satisfaction in being part of creative drama processes and are enthusiastic about the capacity of technology to enhance their learning in drama.

A group of seventeen year olds work to develop a new play that uses film, dance, music and drama. They cross arts forms and develop new ways of constructing and sharing experience that takes drama into new worlds. Their drama is shaped by the technological as much as the observed and imagined world. They use available technologies such as computer controlled lighting, sound effects and multi-media.

All these students are using the language of drama - the symbol system of role, enactment, the skills of the art form, the conventions and technologies of drama. They are arts literate.

Section 1: What is Arts Literacy?

There are (at least) two aspects of students developing Arts Literacy:

- students understanding and using arts languages - the specific, unique languages of the arts forms themselves - in making and responding to the Arts;
- students understanding and using spoken and written language in making and responding to the Arts.

The second, more conventional, aspect is perhaps better understood.

Language, Literacy and the contributions of the Arts

In exploring and developing ideas in arts, students use words to express and communicate their concepts. For example, a group of Year 5's might say "Let's make our improvisation about what happened when Reb's watch was stolen". Their subsequent work will be a negotiation using language.

Another group might write down a chant they have developed. As well as the words of the chant, there might be graphic notation for the rhythm and even some notes about the actions that accompany the sounds. Through language students connect sensory, practical and physical

experiences with other symbol systems. However, it is important to recognise that this isn't the only way that meaning is made and communicated.

In working with others in the arts, students use language to collaborate and exchange ideas. Many of the processes of the arts such as working collaboratively in teams rely on language as the form of exchange. Students use language to develop their skills and techniques; they listen to mentors, peers and teacher modelling. They form questions and clarify concepts. Making suggestions and contributions, refining ideas, giving and taking directions all depend on language as it is conventionally understood.

Some arts forms such as drama and media are intrinsically language based. They are language rich. Language has a central (though not exclusive) role in dialogue, characterisation and situation.

Discourse about the Arts - responding to, reflecting on and evaluating arts experiences and works - happens through language. Many of the conventions and structures of the Arts responses such as identifying characterisation, themes, the use of rising dramatic tension and climax are language based. There is also the use of specific terminology, contexts and habits of language. Concepts and terms such as alienation, cartharsis and improvisation have specific meanings when used in the context of drama.

Language is the medium students use for integrating experiences, for showing the inter-relatedness of knowledge, for connecting the personal with broader, shared and (sometimes) universal experiences.

Also, language is used to explore the historical, social, political, economic and human significance of the arts. Through language students articulate their understanding of the impact of the arts on themselves and generalise to broader concepts such as the role of the arts in their community and society or the ways the arts change over time..

Therefore, it can be argued that the Arts contribute to the general literacy of students. Though, this is perhaps not different in essence to the contributions that all subjects, learning areas and experiences make. But it is none the less important that it is recognised and opportunities are included in the learning programs of all students.

When students work in the Arts they develop their capacity to use language in purposeful ways. The Arts are language rich opportunities for developing their own language and for making and communicating meaning. Because many students become vitally engaged and enthusiastic about their involvement in the Arts, the opportunities they offer for using language are powerful multipliers of language competence.

Arts languages and Arts literacy

Another equally (or perhaps even more) important focus is on considering the arts as languages

themselves. Arts literacy is competence in the arts languages of dance, drama, media, music, visual arts and multi-arts combinations of them.

Each of the arts forms is an identifiable and unique language.

This is more than a convenient metaphor or a simple appropriation of the construct of language to climb on the "literacy bandwagon". This concept is based on a deep-seated and long argued commitment to a way of constructing a fundamental understanding of learning and expression in the arts.

A language is fundamentally a symbol system that is constructed and used for the purpose of communicating ideas and feelings and for making meaning. Language is a bridge between the mind and the body within individuals; it is also a bridge between individuals and groups. It has a central role in identity - both personal identity and identity in groups, communities and societies.

While there are many ways of conceptualising languages, they comprise symbolic elements - such as words, cueing devices such as punctuation, pronunciation marks such as accents - and the ways we combine those elements in making and communicating meaning.

Drama:

Making and Communicating Meaning

Symbolic Elements

Conventions and Agreed Habits of Use

Purpose
Audience
Forms
Structure

Shaping Social and Cultural Contexts

These combinations depend on the habits or conventions of use. They are shaped by a range of purposes and intended audiences.

They also are structured and use a range of forms that are agreed on by maker and receiver.

Conventions are like habits of language, agreed or accepted familiar ways of doing things. While these conventions of using language are often seen as "standard" or widely applicable to whole groups, in reality the idea of there being one standard is questionable. There are often many standards and these are determined by social or cultural contexts.

What distinguishes any language are the ways that symbolic elements are adjusted to create and share meaning. Meaning does not lie exclusively in the element or word. Nor is it simply a matter of structure or form. It broadly encompasses what the maker intended and the ways the receiver understands or interprets as well as shaping contexts and conventional habits of use. Meaning in language, then is as much a matter of the intention of the "maker" as the understanding that is constructed by those who "receive" the communication.

Meaning, then, is not necessarily static or fixed. Together all involved in communication make their own sense. Communication is a negotiation between maker and audience and the currency of that negotiation are the symbolic elements and how they are shaped and shared in conventional ways - ways that are understood by others.

Section 2: Drama as a language

In drama meaning is communicated through role and situation. This is sometimes thought of as "enacted meaning", communicating human interactions and imagination through "stepping into the shoes" of someone else..

This drama language has the features outlined above: a commitment to making and sharing meaning through using symbolic elements and conventions such as purpose, audience, structure and forms that are shaped by contextual factors such as society and culture.

The elements of drama as a language include:

Movement	facial expression gesture and posture using whole body movements placement in space
Sound	use of sounds silences and voices
Energy	ways of using movement and sounds and time

The elements of drama itself are far broader than these elements of drama language. They include role and character, situation and human interaction, voice, movement and gesture, space, time, language and texts, symbol and metaphor, audience, dramatic tension, dramatic forms, genres, styles and conventions. In this paper, I will briefly consider some of these factors.

Facial expression - the ways that meaning is communicated through the eyes, lips and movements of facial muscles - and gesture have a popular currency. Often popularly called Body Language, facial expression and gesture are being continually "read" in everyday interactions. They are also an integral part of the language of drama. For example, a frown is commonly a signal for displeasure or questioning. A smile can be broad and open, thin and forced, empty and disingenuous. A raised eyebrow is considered a question.

In Chinese, Indian or Balinese drama and dance, there are long traditions of the use of facial expression and measured gesture. Masks use emblematic colour and traditional expressions. When these traditional forms are analysed, there is a recognisable codification of symbolic use of gesture and facial expression that is passed from one generation to another. It is formalised and there is ascribed conventional shared meaning to those in that culture. There is a precision to the angle of an ankle or finger or direction of the eyes. While to people from other traditions these elements do not necessarily carry such precision, to those who come from the culture, there is specific communication.

However, it is important to recognise that in Western European traditions which largely account for much of the drama of students in schools, there is not this precision of meaning or use.

It is also important to recognise that the meaning ascribed to facial expression and gesture is culturally and socially determined. For example, it is often observed that in Nungyar Aboriginal society, it is inappropriate for younger people to look directly into the eyes of an older person or authority figure. By contrast, in a western Anglo-Saxon and European tradition, it is expected that a younger person will look directly into the eyes of the person with authority, particularly when being criticised or accused. Similarly, hand gestures have different meanings in different times or places: when and where I went to school jerking a thumb and clenched fist up and down meant something equivalent to the more conventional two fingered salute rather than a "thumbs up" or "everything's OK!" message. Gesture and movement are affected by contextual factors.

In Claire Luckham's play *The Dramatic Attitudes of Miss Fanny Kemble* there is an insight into a Nineteeth Century view of drama where there was an attempt to codify gesture and meaning in acting - something that Fanny Kemble ultimately rejected in favour of a more truthful approach to acting. Anger or fear or happiness were conventionally indicated by particular facial expressions, gestures and postures. There even exist handbooks of these gestures and poses. The common view of Victorian Melodrama reinforces a similar simplified codification of these elements. Early silent movies also drew on a similar simplified repertoire of stylised movement and use of gesture. To an audience deeply imbued with the work of realism in drama - or what passes for realism - these early movies and photographs of melodrama seem naive and simplistic. They are more probably a reflection of deeply enculturated views of what is appropriate.

Similarly, movement is integral to drama. Through movement and the placement of bodies and objects in the performance space, the actor and director communicate meaning.

For example, when wanting to suggest that a particular character has greater importance or higher status, a director might arrange the visual impact of a scene so that the eye of an audience is "drawn towards" the dominant character. Or one character may be taller and placed against a much shorter character. Relationships between characters suggested by the ways they physically touch and interact.

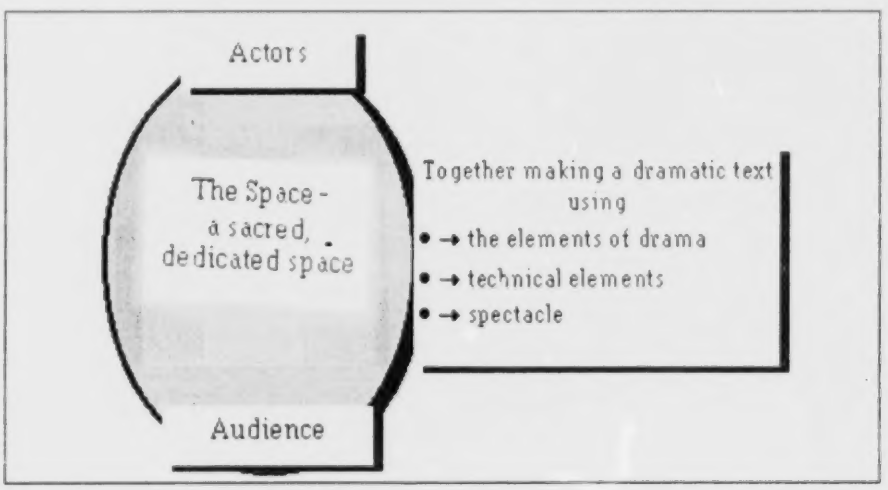
Movement is also often used as the basis for ritualistic elements of drama. Through stylisation and selection (rancourci in the language of classical mime) elements of movement are used to communicate metaphysical ideas. Often in drama, the work of Rudolph Laban in describing

movement in terms of body, shape, space and energy is used as a framework. On the whole, though, the notational language developed by Laban for dance (or that developed by Benesch) is only occasionally used in drama. But a Stage Manager's Prompt copy of a play uses a range of ways to show the agreed movement patterns for a particular production that has similarities to these more formal methods of notating movement.

Sound and voice is another significant element of drama as a language. Of course, words and texts are themselves language. Just as gesture and facial expression and movement have expressive qualities, so to does sound. In its raw form, that is without words, we express meaning; a sigh, a growl, a cry of rage and despair are powerful ways of communicating without using words. These are particularly powerful when coupled with movement and gesture.

The use of voices and sounds is dynamic in drama through varying energy levels. Pace of words, the use of pause, varying pitch and intonation, links between ideas and words. Sounds are also interactive with audiences: actors vary how they use their voices in response to audience's reactions such as laughter or engagement.

The habits or conventions of drama are the agreed ways of making meaning in drama. For example, in the twentieth century there is a strongly dominant commitment to realism as a convention (constantly reinforced by the sorts of drama seen on film and television).



In Western Europ ean drama which has had a powe rful shapi ng influe nce on Austr alian dram a, there are conve ntional relati onships betwe en the space, actors, audie nces and meani ng made in dram atic texts. This can be symbolically represented.

BEST COPY AVAILABLE

direction from stylised to naturalistic approaches reflect shifts in the ways we think about, construct and communicate drama.

BEST COPY AVAILABLE

The conventions of drama are strongly determined by contexts. By contrast with the conventions of western drama sketched in above, as I understand what happens in Aboriginal societies, a different sense of performance is used. The separation of audience and performer is not made in the same formal way that happens in most traditional western theatres; neither is the western demarcation between arts forms as explicit - dance, story and music meld; there are different purposes for the elements of drama some that are associated with ritual and symbolic roles.

Drawn from the work of Jonathon Neelands

The **purposes of drama** reinforce its status as a language in its own right.

Drama can be seen to have at least four complementary and overlapping purposes: to entertain, to inform, to express, to change.

To entertain	Purposefully using the elements of drama to elicit delight in audiences - emotionally engage through identification and ideas. Entertainment is not merely limited to light-heartedness, comedy and simple enjoyment but can be a complex and powerful engagement through thrill, excitement, anticipation, fear and purging of emotions.
To inform	Through drama audiences can come to a better understanding of aspects of human interaction; through role and situation they can come to understand the consequences of actions, character or relationships. This may overlap with change in an audience but does always have to do so.
To express	Drama is intrinsically about realising creativity and finding satisfaction - both personal and social - in expressing and understanding role, dramatic situation and ideas. Drama is also often about the need to express and experience ritual.
To change	Change can be emotional or physical; drama is a potent agent for change through the ways it draws forth identification and its capacity to elicit emotional and intellectual responses in audiences (and actors)

Drama, like all the arts, finds its purpose and engagement with audiences through two main ways: engaging emotions and engaging ideas. Through a process of identification - a taking on of

role or a vicarious entering into the human interaction of someone else taking on a role - we bridge mind and body in direct ways.

Within each of these purposes can be seen at least three ways refining a sense of purpose. Drama can take on

- personal significance - meaning for individuals
- social significance - meaning for groups of individuals, cultures, sub-cultures and societies
- ritual significance - meaning that is metaphysical for individuals and groups

Therefore in talking about purpose, there is an intermeshing of the broad and societal and the personal and individual. This is a hallmark of other languages.

As in all effective communication, we vary the ways we communicate in drama according to the intended purpose and audience. We shape meaning for intended audiences. When we make a play for a younger audience, the choice of words, stories and themes reflect the developmental needs of that audience.

Finally, in this section, I want to highlight the ways that drama uses structuring devices such as form.

This is another feature of a language.

Just as in written and spoken language there are a range of identifiable structuring devices and forms, so too do these exist in drama. At the broadest level of categorisation, in drama there are tragedies and comedies (and tragi-comedies); there are also historical forms that reflect particular times and places such as medieval mystery and morality plays. There are forms that are based on styles such as situation comedy or commedia dell'Arte. Within drama texts there are also ways of structuring them that assist maker and audience to communicate. For example, in most conventional plays there is a pattern of exposition, development and rising dramatic tension, climax and resolution. In verse drama, there is use of rhythmic patterns such as iambic pentameter, caesura and antithesis.

In other words, drama has a precise set of structures and devices that can be the basis for a common or shared language.

Section 3 Drama Language and Technology

The ways that stories are told through drama are changing. Those stories are still as important and so is the telling of them but the influences of technology are re-shaping both the ways young people make sense of the world and the ways they express themselves.

Old hierarchies and orthodoxies are breaking down as new technologies make fresh links and

connections, find new pathways; topics, themes and points of view are different; there are marked shifts along the objectivity-subjectivity continuum; the process of telling the drama story is as important as the dramatic text. All of which probably reflect the influences of the Internet, video clips, television story telling, the blurring of documentary and fictional constructions. There appears to be something more than the tabloid version of a changing informational world.

The recent production 'Scapes by Youth Arts Incorporated for the 1997 Festival of Perth demonstrates both the potential and the challenges of these shifts. Bringing together young people from the four different arts forms backgrounds of dance, drama, media and music in a sustained collaboration over fifteen months, this project encouraged both development of ideas within arts forms but also demanded that participants reach out and make connections across arts forms. A key element in this work was the role of technology.

This work fits in the category described by the awkward but accurate buzz phrase "hybrid arts". While there is a danger of overstating early trends, the work on the stage (can we even use that term any more?) reflects significant perceptual shifts in drama as a form. 'Scapes, for example, was performed in a non-traditional space, the Fly By Night Club in Fremantle, a musicians club in a former army drill hall. The audience were wrapped around the action and film was projected as an integral part of the action.

'Scapes is an episodic play that follows a journey from the coast inland and, eventually, to the stars. It is linked by film and video sequences. It does not follow conventional character development but plunges the audience into the midst of three stories - or one story told in three different ways - the "critical incident" moments of transition: a young man on his eighteenth birthday on the beach; a young woman in a country town on the verge of leaving the dying town; a brother and sister at the funeral of their father in Kalgoorlie. Dance and music are integral parts of the piece. Just as the film, dance and music progresses the dramatic action, it also provides the backdrop for a the action and became in effect another character in the action.

By nature, this dramatic text is more dynamic - in jargon terms, it is more interactive. The participants in the process had as much a role in the creation and sharing of meaning and manipulation of action. The cutting edge of narrative is currently shaped by reader response theorists. To a mindset brought up on the well-made story or play that is crafted, honed and elegant, plays like 'Scapes are notable for their roughness and unfinished qualities. The nature of the throughline is different; there is the use of stylisation, repetition, links and time manipulation that breaks expectations of linearity. The influences of video clips, filmic editing and connecting devices, different structuring approaches and a refusal to explain every detail. A character in one story crosses into another without explanation; there are few concessions to audiences. These elisions of dramatic and narrative structure are familiar to a generation who have a technologically shaped way of telling and understanding dramatic stories. They are more anarchic, free-form, associational, energetic, tension-ridden and driven and, I suspect, reflect a generational shift. They are a different frame of reference for drama - just as other shifts in drama such as moving from outdoor to indoor theatres, the introduction of electric lighting or the arrival of film drama provided similar shifts in their own time.

Above all, there is a sense of dramatic action happening "all-at-once". There are conflicting demands for attention on audiences, multiple storylines and decisions to be made about whether to "watch the film" or "focus on the dance" or "let the music just be in the background". For some members of the audience, this "conflict" is difficult to handle - but for the young participants in this project and for many of the audience, this approach is the norm. That is what the bombardment of media and multi-media images and concepts has wrought.

The drama language used in the piece is deliberately stylised and selectively heightened. There is an intentional dis-jointing of reality, a conscious move away from the dominant traditions of realism. When this dramatic text is closely examined, there are parallels with the ideas and values of playwrights and directors like Brecht who over fifty years ago was riding the crest of the same wave as the developing art form of film, and advocated a similar dislocation of conventions in search of a wakening audience and a shift in perception.

The arts are, paradoxically, notoriously conservative and dangerously visionary - often both at the same time. So too is education. It is appropriate that projects such as 'Scapes question and debate traditional forms and ways of working. In affirming the value of conservative approaches delivered through forms and structures, drama in this new technological world provides stability and continuity. But in looking forward, we recognise the powerful opportunities offered by this changing context. If we don't recognise the past, we abdicate the long trajectory of learning and tradition that is the arts form of drama. If we aren't involved in the debate about new ways of structuring drama - particularly under the influences of technology - we don't have the "street cred" to critique them

Drama value adding to Technology

Drama language also has the potential to "value add" to the technological and IT world.

In a practical sense drama language is the language of interaction: it is through the use of the elements of voices, movement and dramatic texts. In effect, the metaphor of inter-active multi media is that of drama - direct engagement through the senses and a capacity to enter into role and identify with the action. Even the ways that IMM is described in terms of "actors" and "action" is a direct borrowing from the language of drama. Consider the many drama-like qualities of most computer games.

Significantly, I believe that drama language is an important additional element necessary for the development of technology. Without the aesthetic understanding and practice of the all the arts, technological applications are likely to be driven by the technical. It would be sad to limit the potential of technology to the arid world of binary codes or to clichés and stereotypes. Drama and the arts can potentially enhance technology and, I suggest, provide creative and artistically satisfying ways of leading it into a more productive future.

The potential of technology in drama is barely realised yet by most practitioners or drama teachers. It is considerably more than merely better lighting control boards or even computer

driven lights and effects. There are fundamental issues to do with the creative use of technology in the service.

Section 4: Literacy for new times

Just as the current debate on numeracy and literacy is focussed on developing more broadly inclusive ways of considering these issues, so too should the arts and education community be debating and advocating for a broadly inclusive definition of arts literacy.

Not only should we be highlighting how the arts contribute to "general literacy" as I have done earlier in this paper, we should also seek endorsement and understanding of the construct of arts literacy and the value of arts forms such as drama as unique arts languages.

Further, there is a need for arts educators to make active links between arts literacy and other literacy strategies in place at the bidding of political and government initiatives.

It not sufficient for any student to be merely "literate" in a conventional sense of being able to "read, write and speak". True literacy for the world our students face includes technological and arts literacy. The arts can contribute so much more than they are currently allowed to.

Conclusion

This paper develops a model for Drama as a language. Any model is just that - a way of expressing in simplified form, a complex, dynamic set of elements and relationships. This (or any) model is not drama. It is not sensible to replace drama with this model which remains a tool for explaining and articulating what is happening. This paper then is an explanation of - but not a substitute for - the language of drama. Look to the drama itself to see the language in operation. There it will be understood better and in a truly dynamic way.

The Arts as symbolic languages connect strongly to emerging understanding of multi-sensory approaches to learning. In his work on Multiple Intelligences and Frames of Mind, Gardner provides a researched perspective on the value and significance of students developing their capacity to communicate in multiple modes. The Arts are no longer the so-called "frills", the extra curricular: they are at the heart of the curriculum for all students because they enable us to better understand the complexity of human behaviour and imagination as well as rehearse and explore ways of living in an increasingly changing technological society.

Music Literacy

I HEAR WHAT YOU MEAN: MUSIC LITERACY IN THE INFORMATION TECHNOLOGY AGE

Margaret S Barrett

Introduction

What is literacy?

Towards a definition of 'music literacy'.

How do we communicate ideas in music?

The problematisation of literacy

Values

Conclusion

References

Margaret Barrett (BA Mus. Ed; MEd; PhD) is Lecturer in Music Education and Sub Dean Research in the School of Education at the University of Tasmania. Her research interests encompass the study of children's aesthetic decision-making in their musical discourse as composers and critics, and the study of children's compositional and notational processes and products.

Introduction

As this century draws towards a close, the exponential rate of change that has been precipitated through scientific and technological breakthroughs in almost every facet of human life has raised more questions than answers concerning the nature of teaching and learning. One of the central concerns for educators in the very late twentieth century focuses on our definitions of traditional educational issues such as literacy. As we recognise the impact of technological change on society, and importantly, the impact of such change on the ways in which we perceive, think, and act, it is imperative that educators expand current definitions of literacy beyond text-based definitions in order to embrace the full gamut of expression in a technology-based multimedia

environment. In such an environment, children need to develop aural, spatial, and visual perception in order to interpret the fine shades of meaning embodied in, and symbolised by multimedia. In conjunction with developing children's capacity to perceive and make informed judgements within such an environment, we must also equip children with the skills and knowledge to use such media for personal expression. These issues have been the concern of arts educators for some time, and reflect the well-established role the arts have played in shaping and re-presenting the ideas, values, and beliefs of particular cultures. As Green reminds us Whilst the space age has widened those very horizons of our world which the nuclear age threatens, the arts and humanities have also been involved, in their own ways, in overturning traditional concepts of meaning and understanding (Green, 1988, 1).

What is literacy?

Olson & Astington challenge traditional text-based definitions of literacy, and argue that to be literate '...is to be competent to participate in a certain form of discourse, whether one can read or write or not' (1991, 711). For these authors, the notion of literacy rests in the capacity to engage in meta-cognition, or 'thinking about one's own thinking'. They provide a persuasive argument for the proposal that the language that we use in critical thinking, specifically, terms such as hypothesise, assert, criticise, and interpret, although originally developed from the language of text-based thinking, is now deeply embedded in oral language, and as such forms the basis of any notion of literacy.

It is pertinent to this discussion that the arts generally and music specifically engage in critical reflection as a central component of teaching and learning experiences (see Boardman, 1989). This concern is evident in the structure of the nationally developed curriculum framework documents for the arts. Within the common arts strand organisers identified within these documents, those of 'arts criticism and aesthetics', 'making, creating, and presenting' and 'past and present contexts' (Curriculum Corporation, 1994), students in the music classroom are continually engaged in reflective thought processes, processes that are in Olson & Astington's view central to a notion of literacy.

Tishman and Perkins refer to the effects of 'thinking-rich language' on developing certain habits of mind. They comment that:

> ...frequent exposure to the language of argumentation, with such terms as premise, reason, conclusion, evidence, theory, and hypothesis, draws learners into the values and commitments of critical analysis. The language of creative problem solving, with expressions such as wild idea, pushing the edge of the envelope, new point of view, and breaking set, fosters the mind-set of creative ideation (Tishman & Perkins, 1997, 372).

If we view the creation of certain habits of mind as a central component of literacy, then it becomes evident that each of the arts makes a unique contribution to the development of 'certain habits of mind'. Whilst Tishman and Perkins use the notion of the 'language of thinking' in terms of the language we use to talk about thinking, they emphasise that we '...think in many other

languages as vehicles - the language of mathematics, or music, or visual images, if one can call these languages in a metaphorically extended sense...people think in many symbolic vehicles' (1997, 374). Eisner reminds us that '...human products owe their existence not only to the achievements of individual minds, but to the forms of representation available in the culture - forms that enable us to make our ideas and feelings public' (1997, 350). Eisner's insistence on the integral role of culture in shaping children's minds is central to this discussion. Not only do we shape our culture through acting upon the materials and ideas of particular forms of thinking within that culture (for example, musical, visual, kinaesthetic, mathematical thinking); crucially, the forms available within the culture, and the presentation of such forms (through the use of multimedia for example), in turn shape us.

Recognition of this symbiotic relationship underlines the importance of educating children to 'read' and interpret their culture in all its presentations. This is particularly important in a technology based multimedia environment where meanings are presented in a range of forms other than the traditionally text-based. Multimedia environments have appropriated the materials and ideas of specific art forms to communicate meaning. This use of the materials and ideas of the arts as a means of presenting meaning within a multimedia environment, emphasises the need for an expanded notion of literacy to encompass all means of symbolising and embodying meaning. For the purposes of this paper I shall focus specifically on music and the implications for education in general when we view 'music literacy' as a central component of education.

Towards a definition of 'music literacy'.

In some contexts in music education, the notion of 'music literacy' has been narrowly defined as the capacity to use conventional music notation. This emphasis on music notation stems from the western musicological tradition of score-based analysis in which the 'musical work' is referred to and 'defined' via the score. However, as Randell comments '...notation is not sufficient for a definition of "the work itself". Indeed, notation is simply not self-sufficient at all. It must always be decoded by an informed reader who brings to bear on it his or her own experience. And that experience is a product of a parallel oral tradition' (1992, 12). Musical notation may be regarded as a means of encoding and storing musical thought, only acquiring musical meaning when realised as musical sound by a musician capable of decoding and interpreting the set of 'musical instructions' that is notation.

Narrow 'score-based' definitions of music literacy effectively discount those musical practices (and by implication 'musical works') that stem from oral traditions. Furthermore, such definitions of music literacy ignore the contextual aspect of the 'musical work' however it is presented. Kerman asserts that '...by removing the bare score from its context in order to examine it as an autonomous organism, the analyst removes that organism from the ecology that sustains it' (1985, 73). When examining this 'organism' in isolation from its ecological context, the 'score-based' musicologist is engaged in the analysis of a musical work that is vastly different to that heard by an ethnomusicologist. Operating from a view of music as culturally-embedded, the ethnomusicologist's analytical framework must acknowledge and provide a means to interpret the

contextual features of musical works as well as address those features that are seen primarily as internal or 'intrinsic', and capable of being encoded as a set of 'musical instructions'.

If we view as a central component of 'literacy' the capacity to 'participate in a certain form of discourse' (Olson & Astington, 1991, 711) it is evident that many musical practices operate beyond text-based notions of music literacy. For example, a competent jazz improviser demonstrates the capacity to participate in the musical discourse of a particular musical genre, a genre that in many instances eschews notation. When we examine musical practices worldwide, issues of encoding and decoding musical meaning through forms of notation (be they staff notation, graphic notation, hand signs, rhythm syllables or other means of visually recording musical meaning) are of varying importance, with some cultures viewing oral traditions as the only means of transmitting musical meaning.

Whilst knowledge of music notation and the capacity to use music notation for a range of purposes (decoding other's musical instructions, encoding one's own musical instructions) is a component of a broad musical understanding in some cultural contexts, in themselves, these capacities are merely tools for the achievement of musical ends. Furthermore, they are tools that facilitate the coding processes (encoding and decoding) of particular musical genres, largely those of the Western European tradition, and as such are inevitably limited in their broad application. As Eisenberg reminds us 'A musical score is a set of instructions, useful to those who can carry them out' (1988, 11). From the above, it is clear that any definition of 'musical literacy' must encompass the capacity to engage in a range of musical processes and practices beyond those embedded in notation.

How do we communicate ideas in music?

Musical thinking reflects the complexity of the art form, in particular the chronological and intangible nature of the art form. For example, unlike more static mediums such as those of painting or sculpture, the experience of music takes place over a specific period of time and requires the participant to retain large amounts of aural information in memory whilst simultaneously processing further incoming information. Furthermore, as an aural art form, music cannot be captured in its entirety through exercising senses other than the auditory. Whilst recent technological developments may allow us to view a visual display of the relative frequencies of a musical work, this in itself does not constitute a musical experience and does not access the art form for us. In music there is no tangible object to grasp, or to view. To engage in music is to engage in a certain 'habit of mind', as the chronological and intangible nature of the art form requires us to develop a 'music thinking-rich' language.

Elliott reminds us that a musical practice is ...a multidimensional human phenomenon involving two interlocking forms of intentional human activity: music making and music listening. These activities are not merely linked; they are mutually defining and reinforcing (1995, 42).

When engaging with a musical work as an audience-listener, composer/arranger-listener,

conductor-listener, improviser-listener, or performer-listener, students are involved in the processes of interpretation and critique. Best argues that artistic feelings are rational and cognitive in character and that understanding and, importantly, feeling in the arts arises from a process of interpretative reasoning which is as valid as inductive and deductive reasoning (1992, 2). In Best's view interpretative reasoning involves '...attempting to show a situation in a different light...' (1992, 8) and is seen as an imaginative and creative enterprise whereby new perspectives, insights and evaluations arise. Furthermore, in Best's view, artistic feelings '...are necessarily dependent upon understanding the relevant art forms' (1992, 10) and are founded in and supported by reference to specific instances within those art forms.

The processes of musical interpretation and critique are attendant to the ultimate goal of illuminating an understanding of the musical work and communicating musical meaning, however that is realised. Engaging in the processes of musical interpretation and critique involve issues such as: analysing the musical structure of the work; taking into consideration performance conventions associated with the work or musical style; preparing the technical forces (including instrumental facility and formal musical knowledge) to realise the musical work; and, attending to the context in which the musical work arises including knowledge of the composer and what is known of her intentions, and the context in which she works. Through these processes, musical thinking and knowing are manifested in action, specifically those of composing and arranging, conducting, improvising, and performing, as well as in words and through other symbol systems. Crucially, musical knowledge may be demonstrated as well as articulated (see Barrett, 1996), and may be evidenced in the musical outcomes of participation in composing and arranging, conducting, critical listening, improvising, and performing. To return to Elliott, ...a performer's musical understanding is exhibited not in what a performer says about what he or she does; a performer's musical understanding is exhibited in the quality of what she gets done and through her actions of performing (1995, 56).

Whilst Elliott focuses specifically on the performer in the above quotation, I would substitute the words 'composer's', arranger's', 'conductor's', 'improviser's' to expand this view to encompass other musical processes.

When we move beyond narrow definitions of music literacy that focus purely on 'using conventional music notation' to a more broad definition, it is evident that musical literacy should encompass the capacity to listen perceptively and critically to musical experience, and to participate in the music processes of composing and arranging, conducting, improvising, and/or performing. Such listening, whether it takes the form of audience-listening, composer/arranging-listening, conductor-listening, improviser-listening, or performer-listening, is not isolated from considerations of context, and recognises music as a 'multidimensional human phenomenon' (Elliott, 1995, 42). In such a view music literacy may be defined as the possession of a broad musical understanding, encompassing knowledge of, in, and through music. The possession of such an understanding forms the basis of our capacity to participate competently in the 'certain form of discourse' that is music.

Music and technology.

Music and technology have always enjoyed a strong, interactive relationship, one that many writers have commented on. Wishart amongst others (see for example Orton, 1992) claims that 'Music and technology have always been intrinsically bound up with one another. All musical instruments are technological extensions of our ability to make sounds by blowing, scraping, hitting or otherwise exciting materials in the world around us' (1992, 565). Innovations in the means by which sound is produced and manipulated by composers and performers, and received by audiences, may be observed in the practices of musicians across a range of times and cultures. The assimilation of technological advances into music practices may be observed in the acceptance and promotion of new instruments (such as those developed by Stradivarius and Guarnerius in the sixteenth and seventeenth centuries, Sousa and Sax in the nineteenth century, and Moog in the twentieth century) by composers, performers, and audiences. Viewed in this context, technology may be seen as a means by which traditional goals may be pursued in new ways, and/or new goals defined (Moore, 1992, 329).

Eisenberg pinpoints the year 1906 as a watershed in the development of music, and importantly, in the development of public attitudes and tastes in music. In that year the Victor company released the first phonograph available commercially for domestic use. Eisenberg argues that through the introduction of the phonograph, and the possibility of bringing pre-recorded music into the home, music effectively became a 'thing' rather than a practice in which people engaged. The impact of sound recording in creating a culture in which individuals are able to select from a huge palette of musical possibilities has transformed the ways in which we think about and participate in music. Technological development has transformed views of what constitutes musical experience, and '...has made possible entirely new views of what music is, what it can do, and how it can shape people's thinking' (Orton, 1992, 319).

Orton discusses the connection between technological developments within the domain of music and the wider cultural setting, commenting that

> The finest musical instruments throughout history have both reflected and focused the technical capabilities of their time and culture...The finished objects, the instruments themselves, can be understood to embody considerable musical intelligence and understanding, passed down sometimes over generations to augment, extend and develop the complementary creative activities of performers and composers, contributing in turn to the cultural and educational needs of their society (1992, 319).

Recent technological developments have encompassed much more than the refinement and development of instrumental resources and have provided the discipline of music with:

- new means of creation (through such advancements as Music Instrument Digital Interface (MIDI) sequencing procedures);

- new means of notating and publishing (through the ready availability of music notation programs);

- new means of production (through the development of: new instrumental sources and sampling techniques; new ways of editing sound including advances in recording technology that allow the piecing together of fragments of many performances to create the production team's 'definitive' view of the musical work); and

- new means of dissemination (through CD technology and the development of communication networks such as the Internet).

Technology has not only transformed the medium within and through which musicians work, it has also altered radically the ways in which musicians work and the ways in which musicians interact in the processes of music making. For example, through communication technology musicians may create music together despite being isolated physically. International composition projects have been launched through the Internet whereby students isolated by distance may dialogue about their composition projects and work cooperatively in developing new works. With the ready availability of digital recording and editing technology composers are able to 'realise' their works in performance more readily than was possible previously, and have increased autonomy and control of their musical practice. Through technological advancement, the ways in which musical meaning is symbolised and consequently analysed and interpreted have changed immensely, and composers may now 'control' the entire process of their musical production from composition, to publication, to dissemination. Indeed, some claim that the advent of computer technology has changed the ways in which composers think (Orton, 1992, 320).

This relationship between advances in technology in the broad cultural setting and specific applications within the art form of music are equally evident in the application of technology to music education. Whilst advances in sound recording technology may be seen to have had the most impact at a broad social level in recent times, within the school setting it is perhaps the introduction of digital technologies such as computers and synthesisers that has had the most significant impact. These technologies have affected the ways in which students define and approach the tasks of arranging, composing, improvising, and performing, and have altered immeasurably the types of learning outcomes that result from interaction with such technologies. For example, sequencing programs that dispense with a paper and pencil approach to composing and arranging, challenge traditional notions of what is to be learnt 'first', indeed of what is required as prior knowledge at all, in order to participate in a range of music processes. Through the use of MIDI technology, students are able to work directly with the materials and ideas of music, rather than having to work through the intermediary step of encoding musical ideas as notation.

Computer technology and the attendant software is used within the music classroom primarily for two purposes: those of computer as tool; and computer as tutor (Stevens, 1994). In the first of these senses, the computer is used to provide a more efficient means of completing a task through providing programs that focus on notating, sequencing, sampling and accompaniment. In the second sense, the computer substitutes for the teacher through Computer Assisted Instruction (CAI) programs and CD ROMs that provide instruction, exercises and feedback to the student. Stevens views such programs as particularly helpful as they are time-efficient, avoid peer

competition and are generally highly motivating (Stevens, 1994, 53).

With increasing access to the Internet students in the music classroom are also using this medium as a research tool to source information rather than relying on traditional text-based sources and the 'teacher as oracle'. As students turn to this medium the development of attendant skills in identifying search categories, pursuing avenues of inquiry, and discriminating between relevant and irrelevant information may be viewed as learning outcomes that arise from the music research task.

Multimedia music programs have led the way in the development of 'simulation software' and multimedia packages in general (Williams & Webster, 1996, 88). These programs mix high quality CD sound, image and text to provide powerful and flexible learning environments. Such programs are characterised by: the provision of non linear exploration by the student; recognition of diverse learning styles; manipulation of imagery; and multiple uses of aural and visual resources.

Through such programs students are exposed to a particular way of symbolising meaning that draws on the languages of visual and aural imagery. Rather than viewing a package as primarily text-based, enhanced by the supplementation of graphic and aural imagery, often it is the imagery, graphic and aural, drawn from diverse sources (for example, popular culture), that is 'enhanced' by the text.

Increasingly, meaning is embedded in and carried on the imagery. Such programs challenge the notion of a text-based literacy and emphasise the importance of viewing literacy as a broad-based cultural phenomenon in which knowledge of the arts languages in general and music specifically is essential. Cultural references are made through all of the symbol systems available to us and knowledge of these systems is crucial.

Williams and Webster (1996, 18) identify a range of ways in which computers are used within music education, specifically, to:

Learn about music
Organise music information
Publish music information
Create graphics
Notate music
Compose music
Perform music
Communicate with musicians
Create music software
Conduct historic, analytic, and systematic research
Play games

In addition to those uses identified above, I add 'Arrange music' and 'Practise music skills such as aural perception and acuity'. It is evident from this listing that technology has the potential to

transform all aspects of music education. In such an environment it is essential that we recognise the potential of technology to facilitate the achievement of music learning outcomes rather than viewing the introduction of technology to the music classroom as an end in itself. Importantly, in acknowledging the pervasive and multifunctional nature of technological innovation in the domain of music education we must also expand our notions of what constitutes 'musical literacy' and 'literacy' in general.

The problematisation of literacy

The arts have always recognised that communication between individuals and groups is a negotiated process in which discursive and, importantly non-discursive modes are employed. Within the domain of music, communication of musical meaning may be facilitated through a range of modes including arranging, composing, conducting, improvising, performing, and written or verbal discussion. The individual construction of musical meaning rests in the capacity to listen critically to musical events, as either audience-listener, composer/arranger-listener, conductor-listener, improviser-listener, and/or performer-listener in order to relate present aural experience to knowledge of past events, and the prediction of future events. Critical listening may be described as a complex and recursive cycle of perceiving sounds as music, analysing, describing, comparing, predicting, confirming, and evaluating.

Through technology the ways by which meaning is presented, and consequently analysed and interpreted, have changed immensely in the last few decades. Whilst technology has improved access to arts and cultural meanings and increased the diversity of ways in which arts and cultural meanings are presented and symbolised, it is significant that the languages of the arts forms have been appropriated to facilitate the presentation of 'non-arts' meanings. This is evident in multi-media packages where aural and visual imagery are employed to illuminate and present ideas, and, in covert and overt ways, influence the nature and level of participant interaction with the material. Music plays an integral role in the presentation of meaning in multimedia environments.

This appropriation of the languages of the arts forms has brought under scrutiny traditional notions of what it is to be 'literate' in the late twentieth century. Smith claims that 'culturally literate' persons are those '...whose education has enabled them to make their way through life with competence and assurance, comprehending and participating in society's major forms of communication' (1991, ix). We can no longer deny that multimedia technology is one of the dominant forms of communication. Recognition of this requires us to ensure that children are enabled to comprehend and participate in this 'major form of communication'. Such recognition necessitates that we educate children to perceive, analyse, and interpret critically the modes in which meaning is presented in a multimedia environment, specifically, non-discursive modes such as music. In such an environment, education in and through music is essential in developing students' 'literacy'.

Music education should not only encompass the development of skills and knowledge that enable the student to participate in the discourse of music and to use this medium for the purposes of

individual and artistic expression, but should also provide the student with the perceptual and interpretive skills necessary to deconstruct the meanings embedded in the aural imagery used in multimedia presentations. To refer again to the nationally developed curriculum frame-work documents for the arts, through the arts strand organisers of 'arts criticism and aesthetics', 'making, creating, and presenting' and 'past and present contexts' (Curriculum Corporation, 1994), students in the music classroom are encouraged to develop their skills and knowledge in artistic expression in conjunction with their capacity to interpret and interrogate the ways in which meaning is carried by and through the art form of music. Participation in a sequentially developmental music program that addresses all of the arts strand organisers is essential in the development of a 'literate' individual.

Values

Any definition of literacy must include some acknowledgment of values, and recognition that these are embedded in non-discursive modes. Hope comments that ...technology and technique are such central mechanisms in contemporary life that information is easily translated into values without first being filtered through a set of ideas or considered against principles of bodies of knowledge. Images and image making through technical means have thus replaced discourse in many decision-making arenas (1992, 728).

It is interesting to note that through the various theories of musical meaning that have evolved, specifically those of representationalism, expressionism and formalism, music theorists and educators have sought to provide an account of what it is we look for in musical works, and to explore the essence of musical meaning (see for example, Reimer, 1989). More recently such traditional ways of conceiving of and exploring musical meaning have been expanded to encompass interpretations that emphasise the contextual nature of musical experience and interrogate the values and beliefs that are embedded in particular musical practices (see for example, Elliott, 1995). It is significant that music educators are committed to and increasingly practised in the investigation of values as they are embedded in non-discursive as well as discursive modes. Such skills are of critical importance in multimedia environments in which values are carried on and through technology and technique rather than conventional forms of discourse.

Hope speaks of a pervasive 'general faith' in technology, a view that technology is good, value-free, and the application of which is to be encouraged in all avenues. Such a Pollyanna view of technology ignores a number of ethical issues that have arisen in conjunction with technological advances. In addition to the identification and illumination of values embedded in technology, these issues include: the ownership and protection of copyright in an environment in which ready access to artist's work through the Internet has facilitated the copying of work without permission; the continuing controversy over censorship of material published on the Internet; the definition of a 'performance' and a 'performer' in an age where digital recording and editing techniques result in the 'performance' being the product of a production team's 'definitive' view of a musical work, rather than that of a musician; equity of access to technology and the discourses that have arisen through technological advancement; the increasing social

isolation of students as they work in physical isolation, communicating with peers at distance.

In addition to these more broadly based concerns, teachers face a range of issues associated with the definition and assessment of student learning outcomes as they arise from student interaction with technology in the music classroom. For example, through the development of MIDI and attendant soft-ware students with scant 'formal' musical knowledge are able to produce original compositions (with computer-generated notations) of considerable artistic merit. Are these works to be assessed in terms of their 'cultural capital' or in terms of their presentation of the students' knowledge of theoretical issues? Clearly, there are a number of issues associated with the use of technology in educational and non-educational settings that need to be resolved.

Beyond the examination of ethical and moral values as they are addressed within technology-based multimedia environments, it should be acknowledged that such environments play a crucial role in fostering aesthetic and artistic values. As students interact with technology-based multimedia environments in such processes as accessing information, creating new works, and communicating with others, demands for precision, accuracy, clarity, and the effective communication of ideas across a range of media foster the development of a feeling, respect and concern for values students later realise are aesthetic and artistic.

Conclusion

In reviewing the current state of technology in American schools Kerr (1996) identifies a number of emergent themes. These include the caution that technology is not a panacea, as 'Its use does not automatically lead to more, better, or cheaper learning' (1996, xiv). Kerr also identifies the need to examine critically the materials that form the basis of technology-based products, as the simple reconfiguration of materials used in a 'non-technology' sense does not ensure different or better results.

Finally, Kerr emphasises that 'technology has social as well as cognitive effects' (1996, xiv).

The issues that Kerr raises emphasise the need for all teachers to develop a working knowledge of the languages of each of the art forms in order to: develop critical awareness of what constitutes good design in multimedia packages and technology applications; to identify and interpret the ways in which meaning is embodied in the languages of the respective art forms; and to identify the educational potential of technology-based multimedia in both arts and non-arts learning applications. Knowledge of the arts underpins children's learning in a multimedia age, and such knowledge must be fostered in an informed and critical environment. Professional development in the arts and a focus on arts education in teacher education settings is important as we move toward a technology-based multimedia teaching and learning environment.

When we define literacy more broadly as the capacity to 'participate in a certain form of discourse' (Olson & Astington, 1991), and to comprehend and participate in 'society's major forms of communication' (Smith, 1991) it is evident that text-based literacy constitutes only a

part of such a definition. Recognition of all of the 'discourses' through which meaning is presented in a technology-based multimedia environment entails recognition of the unique and vital contribution of each of the arts and music specifically. An expanded view of literacy to encompass music and the other art forms acknowledges the key role these discourses play in modern multimedia presentations, presentations in which non-discursive modes are the means by which important ideas in the worlds of business, commerce, advertising and, above all, in politics, are presented. In developing students' capacity to participate fully in the life of work and the work of life it is essential that we foster students' skills, knowledge and understanding in the languages of all art forms.

References

Barrett, M. (1996). *Children's aesthetic decision-making: an analysis of children's musical discourse as composers.* International Journal of Music Education, 28, pp. 37 - 62.

Best, D. (1992) *The rationality of feeling.* London: The Falmer Press.

Boardman, E. (1989), (ED.). *Dimensions of musical thinking.* Reston, Virginia: Music Educators National Conference.

Bontinck, I. (1992) Possible policy implications of the mediatisation of musical creation and production. In H. Lees, (Ed.) *Music education: Sharing musics of the world. Proceedings of the 20th world conference of the International Society for Music Education.* Seoul, Korea. Christchurch: The Printery, University of Canterbury. pp. 319 - 325.

Curriculum Corporation, (1994). *The Arts: A Statement on the Arts for Australian Schools.* Carlton: Curriculum Corporation, Curriculum Corporation, (1994) The Arts: A Curriculum Profile for Australian Schools. Carlton: Curriculum Corporation.

Eisenberg, E. (1988). *The Recording Angel: Music, Records and Culture from Aristotle to Zappa.* London: Picador.

Eisner, E. (1997). *Cognition and representation: A way to pursue the American dream?* Phi Delta
Kappan, 78 (5) 348 - 354.

Green, L. (1988) *Music on Deaf Ears: Musical Meaning, Ideology and Education.* Manchester: Manchester University Press.

Hope, S. (1992) Professional organisations and influences. In R. Colwell, (Ed.) *Handbook of music teaching and learning.* New York: Schirmer Books.

Kerman, J. (1985). *Musicology.* London: Fontana Press/Collins.

BEST COPY AVAILABLE

Moore, F.R. (1992). *A technological approach to music*. In J. Paynter, T. Howell, R. Orton, & P. Seymour, (Eds.) Companion to contemporary musical thought, vol. I. London: Routledge, pp. 329 - 354.

Olson, D. R. & Astington, J. W. (1991). *Talking about text: How literacy contributes to thought*. Journal of Pragmatics, 14, 705 - 721.

Orton, R. (1992). *Musical, cultural and educational implications of digital technology*. In J. Paynter, T. Howell, R. Orton, & P. Seymour, (Eds.) Companion to contemporary musical thought, vol. I. London: Routledge, pp. 319-328.

Randell, D. M. (1992). The canons in the musicological toolbox. In K. Bereron & P. V. Bohlman, (Eds.) *Disciplining music: Musicology and its canons*, Chicago: University of Chicago Press.

Reimer, B. (1989). *A philosophy of music education*. New Jersey: Prentice-Hall. (2nd edition).

Smith, R. A. (1991) (Ed.). *Cultural literacy and arts education*. Urbana: University of Illinois Press.

Stevens, R. (1994). *Technology and Music Teaching and Learning*. Geelong: Deakin University Press.

Tishman, S. & Perkins, D. (1997). *The language of thinking*. Phi Delta Kappan, 78, (5) 386 - 375.

Williams, D. B. & Webster, P. R. (1996). *Experiencing music technology: Software, data and hardware*. New York: Schirmer Books.

Wishart, T. (1992). *Music and technology: problems and possibilities*. In J. Paynter, T. Howell, R. Orton, & P. Seymour, (Eds.) Companion to contemporary musical thought, vol. I. London: Routledge, pp. 565 - 582.

Media Literacy

Media literacy and the information age

Robyn Quin

Introduction

Mapping the field

The Australian situation

Characteristics of the emerging media

The implications for media studies

Technology as text

Reading technology as text - a case study

A media literate approach to technology

Conclusion

References

Robyn Quin (B.A., Grad Dip Ed., Grad Dip Media, M.A.) is the associate professor of media studies at Edith Cowan University. She is the co-author of Exploring Images, Real Images, Meet the Media, The Big Picture and In the Picture. Her major research interests are in children and the media and youth audiences. .

Introduction

This paper explores the ways in which the languages, competencies and skills developed through a study of the media can contribute to the development of literacy appropriate to the era of information technology. My approach is to begin by outlining various definitions of media literacy and the media literate individual in order to pinpoint the skills and competencies that a study of the media will, or at least should, develop in our students. I will then give a brief description of the sorts of media literacies promoted by the study of the media within the

framework of the arts learning area and follow this by an examination of the characteristics of the new technologically based media. At this point I will try to bring the two issues of media literacy and technology literacy together. The second part of the paper explores the ways in which media literacy skills can not only contribute to technological literacy but are indeed a necessary aspect of it.

Mapping the field

The notion of literacy within the field of media studies is a tricky one. It is culturally and historically diverse yet specific; it is linked to wider but contested conceptions of the role of education in training for citizenship and democracy; it is the rallying call both for those who wish to rid the curriculum of any study of the media and those who wish to make media education a compulsory part of the curricula. Different groups depending upon where they are coming from and where they want to go use the term literacy, with respect to media studies, in different ways. The definitions of media literacy that are reproduced below point to the different emphases of various education systems, politicians, educational theorists and teachers. There are differences in the importance they place on such aspects as the role of critical thinking skills, values education and artistic production in their conception of media literacy and their view of the media literate person.

From Canada:

> Media literacy aims to assist students to deal critically with the media and their role in their lives. The media literate student should be able to make conscious, critical assessments of the media, to maintain a critical distance on popular culture, and to resist manipulation... More specifically, it is education that aims to increase studentsi understanding and enjoyment of how the media work, how they produce meaning, how they are organised, and how they construct reality. Media literacy also aims to provide students with the ability to create media products. (Duncan, 1989, p. 7)

> Media literacy is an informed, critical understanding of the mass media. It involves an examination of the techniques, technologies and institutions that are involved in media production, the ability to critically analyse media messages and to recognise the role that audiences play in making meaning from those messages. (Shepherd, 1993, p. 14)

From the United States:

> Media literacy gives students the skills to be confident and competent consumers and creators of media messages. They should be able to comprehend the media and analyse and evaluate media messages. In addition they should be able to design and produce media products that successfully communicate information and feelings. (Considine, (1992), p.12)

From Europe:

> Education in the new technologies and the media should play an empowering and liberating role, helping to prepare pupils for democratic citizenship and political awareness. Thus pupils should be given an understanding of the structures, mechanisms and messages of the mass media. In particular, pupils should develop the independent capacity to apply critical judgement to media content. One means to this end, and an objective in its own right, should be to encourage creative expression and construction of pupilsí own media messages, so that they are equipped to take advantage of opportunities for the expression of particular interests in the context of participation at the local level. (Council of Europe, (1989), paragraph 5)

From Germany:

> Any media literacy instruction will only live up to its task if it also communicates values beyond mere information. It must train intellectual judgements much as exercise and strengthen moral and social behaviour; the possibility of meeting individual interests and needs must not be narrowed down in this process. (BLK, (1987), p.30)

From Britain:

> Media education aims to develop systematically childrenís critical and creative powers through analysis and production of media artefacts... Media education aims to create more active and critical media users who will demand, and could contribute to, a greater range and diversity of media products. (Bowker, (1991), p2)

The Australian situation

In most Australian states media studies is taught in at least two of the eight learning areas, in English and the arts. In the English curriculum area the mass media are described as ithose print, non-print and electronic forms that communicate with a mass audience: television and video, print, film, computer software, and radio.î (A statement on English for Australian schools, (1994), p. 9). Elsewhere the curriculum document stresses the need for students to develop an understanding of the language of the media and the ability to analyse values and attitudes promoted in media texts.

The approach to media in the arts learning area is not very different:

> Students develop an understanding of media texts and their production in cultural contexts... students work with notions such as representation, audience, institution and media language and engage in critical analysis of the media and their own media representations. (A statement on the arts for Australian schools (1994) p.18).

The arts area does however include reference to production:

> Media production can involve and is shaped by a multiplicity of media forms,

technologies, values and discourses. (A statement on the arts for Australian schools (1994) p.18).

The profiles also contain frequent references to students producing their own media artefacts. (The arts - a curriculum profile for Australian schools (1994).

To some extent the differences between the teaching of the media in the arts and English areas are more apparent than real. In my experience, and an examination of the Profiles appears to confirm this, the teaching of media in both areas include one or more of the following approaches.

- The development of skills in textual analysis. Students are taught basic skills in semiotic analysis and apply these skills in the analysis of visual images for the purpose of identifying the values and attitudes assumed to be inherent in the textual representations.
- The development of skills in the production of media texts. Students are taught skills related to the planning, scripting, recording and post production of their own texts in the media of film, video, print, audio and photography. Very occasionally students have the opportunity to create computer-based texts.
- The development of a knowledge base drawn from theories in sociology, anthropology, literary theory, art history and cultural studies which is applied to popular media texts.
- The development of an appreciation of a set of selected texts and the ability to write and speak about them in terms of their artistic, dramatic, ideological and moral values.
- The development of a knowledge base of the political, industrial and economic structures of broadcasting and the media industries in Australia.

While production tends to be more strongly emphasised when media studies is taught within an Arts framework, by and large teachers, tend to draw to a greater or lesser extent on all of the above approaches. Underpinning the various ways of tackling teaching about the media is the belief that students need to be explicitly taught the skills required to understand and to produce visual texts. These skills include, but are not restricted to, the ability to:

- Interpret and use visual language
- Interpret and construct visual narratives
- Analyse and evaluate media representations of social groups
- Produce a text within a given genre
- Identify rhetorical devices in media texts.

The impetus for this paper was the challenge to demonstrate that media literacy can contribute to the development of literacy or literacies appropriate to the age of information technology. What application then do the types of skills described above have in the digital age? In order to answer this question we must look at both the new types of texts being produced and the contexts of their production.

Characteristics of the emerging media

The media of the late nineties is characterised by convergence. We are witnessing a convergence of communication and information technologies as a result of digitisation. The integration of carriers like the telephone, computer and cable will mean that the number of channels through which we can access still and moving images, voice, text, graphics and music will increase dramatically. We can see the convergence of genres, most obviously, on the World Wide Web. The Web offers information, entertainment, advertising, and interaction in a seamless flow. It is often not possible to differentiate between the categories simply because the categories no longer exist. Information is entertainment, advertising is entertaining and the old generic boundaries have disappeared. There is a convergence too of textual forms. The new technologies offer more than print with pictures. Digitisation makes possible combinations of print text, graphics, charts, pictures, animations, sound and vision clips, diagrams, and maps, in a non-linear manner and wherein each can be a jumping off point for connections to other texts. Finally the new media are characterised by a convergence, or perhaps conflation is a better word, of producer and consumer. Cheap digital software allows textual forms to be ëgrabbedí from different sources and re-combined into new texts. The consumer is able to choose what he or she will grab and store for use in production at the very moment of their consumption.

The development of cheap and easy to use software will accelerate the production of new forms of texts most of which we cannot yet imagine. Already we have seen the development of video diaries, electronic postcards, lifelike simulations, video letters and home produced interactive games. If we have the technology available we can make virtual tours to museums, zoos, historical sites, countries and the moon.

The implications for media studies

The major implications of the above for schools are to do with new forms of communication and new types of texts. The convergence of information and communication technologies and the development of networks offer the possibility of using the computer as a tool of communication. The computer becomes a medium located somewhere between the telephone (interpersonal communication) and broadcasting (mass communication). This will make possible a new form of communication to which the traditional boundary definitions of inter-personal/mass will not apply. This possibility has major implications for the way we teach, the way we define the classroom, the way we communicate with students and they communicate with each other. Networking offers the potential to make schools part of greater intellectual communities, to share and exchange documents between schools and between schools and other organisations.

The new media texts, produced through digitisation, do not privilege verbal language. Multimedia is an integration of image, text and sound and multimedia literacy will require the combination of traditional verbal text literacy skills with those specialised literacy skills applicable to art, music and the media.

Media literacy skills will be imperative for those who want to produce in the new media. Media teachers have consistently argued that media production enhances understanding of the media.

iJust as we integrate writing with the development of reading skills, we should integrate formal media analysis with media production...Many students will grasp the analytic material only if they have undergone the production experiences.î (Duncan, (1989) p. 16) Personally I find this argument nonsensical. There is no relationship between studentsí production practices and those of the media professionals and it is not simply a problem of lack of equipment. The experienced media professional operates in a different institution, in a different discursive regime, within different sets of practices than the student with the camera in the classroom. A student will not get access to nor understand the professionalís world by simply making a video about her school. There is however a far more powerful reason to give students the opportunity to produce in the new media.

> If we are to have an influence in the wider world, if we are to be able to offer alternative readings and interpretations, and new ideas to others, we need the skills of the writer. Readersí worlds are shaped by the texts they read. If we are to be shapers as well as shaped, we must be able to write. (Lemke (1996) p. 8)

However the process of writing in hypermedia, in the sense of producing a communicative text, is nothing like the traditional process of writing. Authoring hypermedia texts is more like making a film or creating a giant montage requiring as it does the selection, organisation and relation of ëstacksí of images, sound bites, graphics, moving images and written text. To write effectively in the new media requires more than basic computing skills although these are undoubtedly a necessary prerequisite. They need, in addition, skills in visual language, in layout and composition, in design, in storyboarding, in scripting, in creating images, sounds and text appropriate to their intention and audience. In short they need many of those skills traditionally assigned to media literacy.

Up to this point I have concentrated on the peripheral contribution media literacy skills can make to studentsí education in the information age. I believe that the greatest contribution media literacy can make is to subject computer mediated communication to the same analysis and rigorous interrogation that it makes of other forms of communication. Media literacy must embrace technological literacy. The real contribution media education can make is to teach students how to ëreadí technology as a text and computer mediated communication as a medium of communication worthy of cultural analysis. John Beynon (1996) cites Michael Young as pointing the way when he said that we need to develop:

> ...knowledge about how technological choices are enmeshed in organisational, economic and political choices ... a concept of technology as a social phenomena...we have to find ways of making explicit how different purposes are involved in its design, its implementation and its use, and how at each stage there are potential choices and decisions to be made. (Young (1991) p. 241)

Technology as text

In order to do this teachers and students will need to know about technology in a way that goes

much further than skills (although both will need to be technically competent and confident). To know about technology in this wider sense will be to have the skills to read its meanings and values, skills I suggest that are central to media studies. Central to the teaching and learning of media studies is the reading and cultural analysis of texts other than the literary, texts as diverse as soap operas, news reports, feature films, album covers, music videos and shopping malls. The object of such analysis is to examine how such texts represent reality and identify and evaluate, support or reject, the values implicitly and explicitly structured within these texts.
The same analysis can and should be made of technology, both hard and software. No media studies teacher would argue that watching an item on the evening television news is identical to seeing the actual event. The television news item is a product of mediation, of a series of choices made by crew, editors, producers, and directors working within a large and powerful institution and according to a set of unwritten rules to do with ënewsworthinessí. The same can be said for both computer hardware and software. They are not neutral tools and packets of undisputable facts. Rather they have been produced for particular purposes and shaped by social, political, economic and market factors. Most obviously software is just as much a construction as a news item on television. It has been constructed by a team of people working within institutional and technical discourses and according to the rules and constraints of the mode of presentation. It is possible and definitely desirable to read the software in much the same way as a media literate person would read the evening news, as a mediated construction of reality.

Reading technology as text - a case study

How does one apply media literacy skills to technology? I will make a case study of an item of educational software in order to explore this question and propose some applications of media literacy skills to technology. My example is a multimedia history package called Flashback (Board Of Studies, New South Wales 1992). The CD-ROM has many of the characteristics of the mass media. It is selective, constructed and seamlessly edited. Like the media it is characterised by the visual grab, the authoritative voice and the short sequence. This CD-ROM provides students with the opportunity to study selected aspects of Australian history, the reasons why Australians participated in overseas conflicts and the impact of these events upon Australia. It uses print information, pre-recorded sound (speeches and songs), newspaper cuttings, photographs, narration, archival film and newsreel footage. It is both a textbook in so far as it includes written information and a small archive. It is in†full colour, icon controlled and mouse operated. It looks good but what does it say about history?

That all historical documentation is selective is not disputed but in multi-media packages this selectivity is intensified while at the same time the apparent diversity of the resources works to make us think otherwise. The multimedia package, by definition almost, is heavily reliant on media documentation - photographs, newsreel footage, and newspaper articles to support its information and argument. Documents however are not evidence of history; they are products of history. These media documents were products of the dominant ideology of the time. In the selective use of them as evidence to "prove" an interpretation of Australia's role in, for instance, the Vietnam War the archival material acts as a form of closure. The argument is presented, the evidence is supplied in the archival artefacts and therefore the interpretation is proven. The

archival material itself is not presented as an object of†interrogation for the students.

The multimedia package produces a second level of selectivity; a level demanded by†the medium itself. Multimedia packages are very expensive to develop. The Flashback package development costs were in the†realm of $250,000. (Information provided at Curriculum Corporation Seminar, October 1993.) The high cost factor means that the†packages must be user friendly and attractive in order to†generate sales and thus recoup costs. Ease of use is†guaranteed by the use of simple, repetitive navigational paths to access the materials. Attraction and interest in†the material is promoted by the use of full colour graphics, short bites of information, and an operational†mode very similar to a computer game. These factors, colour and movement, the navigational routes a student†must take to access the material and the regulated and†repetitive menu of available pathways determines to a large extent the types of documents that can be included†in the package. The determination is not historical but structural. For example in the Flashback package students may choose from a number of historical eras but within each choice the second level menu is the same. The choices of archival material are†photographs, film and pre-recorded audio tracks. The content is determined not†so much by its historical relevance but by its position in†the package. The documentary evidence is selected to conform to the†pre-determined structure of the package. It is the structure that determines what becomes historical evidence. Furthermore the†balance of photographs, film and audio is roughly identical in each navigational†pathway making the separate era components equitable in†terms of length and number. The outcome is that each historical era is given the same amount of coverage suggesting that they are of equal importance in Australian history.

The multimedia package carries a number of implied messages for the user. There is embedded in the package a metadiscourse, which places it firmly in the realm of the educational, and all the†associated values that go along with this term. To start with it carries the authoritative voice of the New South Wales Board of Studies. It might look a bit like a game but the Board of Studies logo on the opening screen†says work not play, fact not fiction, just as powerfully as the traditional teacher in the classroom.

The package also unavoidably carries the weight and authority†of technology. In the culture of the schools technology is†often positioned as unbiased, culturally neutral and free from†human inconsistency. When children in schools work with technology they work with machines and not people. Computers are presented as simply a powerful tool of learning. In schools issues of technology as an agent of power and control,†of the realised potential of technology to reorder and restructure social relations takes a back seat to instruction in software applications.

These two discourses, educational authority and technology, act against a critical questioning of the text. The taken for†granted assumptions about education and technology which are†inscribed in the multimedia package make it no more or less†ideologically innocent than any other educational tool, including the teacher. Thus said I am not trying to make yet another "isn't this awful argument". History as it is taught by multimedia is not necessarily better or worse than traditional chalk, talk and†textbook teaching. Contents wise it shares similar problems to the textbook approach in that it tends to foreground character. On the other hand it offers new possibilities because it is not†constrained by narrative. Whereas school history books tended †to

present history as a story, marked by a linear structure, the importance of character, and closure, the multimedia package breaks with this convention.†Linearity disappears because of the multiple entry and exit points offered by the material.

My aim is not to promote or denigrate either the educational software or this approach to the teaching of history but to see how media literacy skills can be used to analyse the software package in both its form and its content. Through the application of media literacy skills I want to crack the authoritative voice of the text and foreground issues of selection and construction in the multimedia text.

A media literate approach to technology

As a media theorist and teacher I would approach this piece of software or any other from four directions. First I look at the medium, its form and the limitations imposed by such.†Secondly I examine its contextual features - the political, social and economic dimensions of its production and consumption. Thirdly I raise issues related to the knowledge it purports to deliver to audiences. The fourth area is concerned with audiences because I think students need to reflect upon their position as a†reader and foreground their role in the construction of meaning.

(i) The medium

In Laws of the Media McLuhan framed a set of questions designed to identify the ways in which a new medium can reconstruct and reorder social relations.

In a modified form these questions provide a useful entry point into classroom discussion of the impact of multimedia instruction on teacher/student relationships and learning modes. McLuhan begins by questioning the idea of the progressiveness of any new medium, in other words, what does it do, and do better, than the media which preceded it?

The greatest claim for the interactive educational media is its capacity to involve the student in the learning process through direct engagement with the subject matter. Although a student can control the sequence of learning, the content and its form necessarily limit the amount of information that is available on each topic.

The second issue, raised by McLuhan, is to do with obsolescence, that is, what is†made redundant by the new medium? Arguably, the computer is a way of augmenting the number of teachers available. A multimedia package makes possible the collection of a wider range of resources, both original documents and commentary, than would be available in any classroom or within the capabilities of any single teacher. The package provides audio-visual and print resources that are relevant, authentic, and instantly available. Although the teacher may not be replaced, the difficult and dreary task of collecting resources is made obsolete.

Furthermore, the teacher is no longer placed in the unfortunate position of being the major source of knowledge.

The third issue raised by McLuhan is the evolutionary nature of any new medium. What appropriation of old media forms is made by emergent media and how are the old forms changed by their incorporation into the new? The content of multimedia is other media. Film clips, videotape, posters, newspaper articles, photographs all interplay, sometimes with several on the screen at the same time. Film†footage almost forgotten by the teachers and never before seen†by the students gets new play. The old media do not return in their original form. Technological limitations mean that film footage is provided in very†short grabs and occupies only a small percentage of screen space. The footage has also lost much of its verisimilitude, appearing in slow motion without lip sync or with no sound at all or with sound quite different in source from the footage on the screen. One effect is to emphasise the dimension of the "grab". The footage does not flow even as it would when film†clips are grabbed for news segments. In news coverage, the grabs are part of a narrative, which runs through the news, held together by the character of the presenter. Here there is no strong narrative, just pieces of information in isolated grabs of between three and ten seconds.

(ii) The contexts

There are two contexts to be considered, those concerned with the encoding (the production process) of the package and those concerned with the decoding (the consumption process). The conventional categories of the political, the†economic and the social are familiar, relatively well understood and adequate for the purpose here. The most obvious aspect of the political context of the software is that the NSW Board of Studies, a body representative of various schools sectors and other interest groups created it. It is the most powerful accreditation authority in the country in size and range of responsibility. It is also one of the most conservative.

Given its production context, it is not surprising that the content steers away from overt value judgements. The presentational style assumes an air of objectivity. History is not presented as construction unless the territory is safe. For example Harold Holt's "All the way with LBJ" statement and Johnson's reply when he came to Australia is subjectively presented in terms of Australia's subservient role in relation to the United States at that time.

The political context includes the key debates that may be surrounding the texts at any given time. One of the issues at the time of construction of Flashback was†Australia's relationship with the major powers. The capitalist/communist polarisation had broken down; the Gulf War again provided the opportunity to consider Australia's†relationships with the major powers. It is important for†students to ask whether there is any connection between these†external issues

and the teaching material they have before them.

The examination of economic contexts involves consideration of costs,†target audience, markets, monopolies, merchandising tie-ups.†These will shape the meanings that are drawn from†the texts. Multimedia packages are costly to produce. High†production costs mean fewer possible producers and a need for mass sales or heavy subsidisation. Both options mean that a package†of this type will present a "safe" view of the world. Alternative views†of history that will be of interest to only a small target audience have to be ruled out in the bid for subsidies. Organisations and individuals interested in alternative views of history tend not to have the capital to provide the subsidies that would be necessary to enable their views to be distributed.

The social contexts embrace the social circumstances of both the producers and users. Some reference has already been made to the establishment position of the producers. If the high culture, low culture dichotomy is applied to education,†then the position of the Board of Studies is decidedly high culture. Different school subjects have different status too. History has high status therefore the intended meanings are seen as significant. This status of 'serious stuff' is a significant shaper of meaning. It provides a high level of authenticity and resists challenges to its own authority.

(iii) Knowledge

The Flashback program is content driven. Much of the information is in the form of a montage of images which are meant of be representative of each era. For example, the 1960s are represented by a series of still images of the Beatles, beach culture, baby boomers, hippies, and Aboriginals living in poverty or on missions. The images are accompanied by statistics, which further restrict the readings of the images. Presentation of information in this manner has the intended consequence of foregrounding the selection of content. It is so simplistic that it invites challenges. Why these images? Who chose these stereotypes? What are the absences? Why are nearly all the pictures of men?

A further textual simplification that unintentionally opens a space for debate are the simple one liners and statistics†presented out of context. For example, in one segment, we are†advised that in the 1960s there was one- percent unemployment. At the same time, mention is made of the Henderson inquiry into†poverty. Such apparently contradictory information invites us to question the absences. What information are we not getting?

(iv) The audience

In addition to the context surrounding text production, there is also the reception context, which will influence the meaning†students make of the material. First we

need to recognise the diversity of background and experience that young people bring to their media experiences. Children are not slack-jawed, glassy eyed morons soaking up†everything they see. They are audiences and as such are active and ceaseless producers of meaning. (Fiske, (1987) p.70) Although a text will offer an audience positions from which to view the world, these positions are not immutable. (Hodge and Tripp (1986) p.49) Even authoritative educational texts will trigger unanticipated responses. They are often disputed, argued with, integrated, modified, negotiated or even more likely, ignored. We need to pay attention to what the students are bringing to the text and acknowledge that their readings of a program may be very different from our own but†equally valid. We need to encourage students to negotiate their own meanings, argue back with the text in their own terms and make sense of its values in terms of†their own. This is equally true of the educational media†text as it is for the video game in the shopping centre.

Conclusion

I have argued that we should take a cultural and critical view rather than a technicist view of the role and function of computer generated texts and computer mediated communication in education. Media literacy skills are one set of tools which will allow teachers and students to analyse technology from economic, social, political and cultural standpoints.

References

Beynon, J (1996) *Technological Literacy: where do we go from here*. Journal of Information Technology and Teacher Education

BLK. (1987). *Overall concept for information technology education.* Materialien zur Bildungsplanung. Bonn: Geschaftsstelle der BLK.

Bowker, J. (Ed.). *Secondary media education: A curriculum statement*. London: British Film Institute.

Considine, D. (1992). *Visual images: Integrating imagery into instruction.* Englewood, Colorado: Teacher Ideas Press.

Council of Europe, Standing Conference of European Ministers of Education Sixteenth Session, Istanbul, 11 and 12 October 1989. Resolution on Education and Media and the New Technologies paragraph 5, Strasbourg 1989

Duncan, B. (1989). *Media literacy resource guide*. Toronto: Ontario Ministry of Education.

Fiske, J. (1987). *Television culture*. London: Methuen.

Hodge, R. & Tripp, D. (1986). *Children and television: A semiotic approach*. Oxford: Polity Press.

Lemke, J. (1996). *Critical literacy for the multimedia future*. Interpretations 29, (2).

McLuhan, M.& E. (1988) *Laws of the media: The new science*. Toronto: University of Toronto Press.

Shepherd, R. (1993). *Why teach media literacy*. Teach Magazine, Oct/Nov

Young, M.F.D. (1991) *Technology as an educational issue*. Mackay, H., Young, M.F.D., and Beynon, J. (Eds). Understanding technology in education. Basingstoke: Falmer Press.

(1994). *The arts - a curriculum profile for Australian schools*. Carlton, Victoria: Curriculum Council.

(1994). *A statement on the arts for Australian schools*. Carlton, Victoria: Curriculum Council

Visual Literacy

Lee Emery

Adele Flood

Introduction

The literate person

Visual literacy

Seeing art in a visually crowded world

'Reading' forms and images

Visual and verbal literacy

Making meaning in the visual arts

How can art education contribute to students' use of technology?

Art education and other areas of the curriculum

Conclusion: The visual arts and meaning making

References

Dr Lee Emery is Associate Professor in Arts Education at the University of Melbourne. She is the immediate past editor of Australian Art Education and co-author of the National Curriculum Statement and Profiles for the Arts in Australian Schools.

Adele Flood is a lecturer in Education at the Royal Melbourne Institute of Technology University. She is the current President of the Australian Institute of Art Education.

Introduction

The exercise of judgment in the making of artistic images or in their appreciation depends on the

ability to cope with ambiguity, to experience nuance and to weigh the trade offs among alternative courses of action. These skills not only represent the mind operating in its finest hour but are precisely the skills that characterise our most complex adult life tasks..... The cultivation of judgment and the ability to be flexibly purposive is best achieved when the tasks and content children encounter in school provides the space for such skills to operate. When the arts are well taught, such skills have an essential place (Elliot Eisner (p.67. 1985).

The literate person

When E. D. Hirsch wrote his seminal text 'Cultural Literacy' (1987) he tried to define 'what every American needs to know' in order to be considered a literate person; ie a literate American person. Hirsch proclaimed that every American should at least know things like the national anthem, be able to list the Presidents of the United states, sing key folk songs and be able to recognise key American icons such as apple pie, blue jeans and Coca Cola. By insinuation, Hirsch suggested that an illiterate American would be one who could not recognise and comprehend the meaning of these traditional and in-grained symbols of American culture. In making long lists of things which he considered 'every American should know' Hirsch unfortunately established a list of Eurocentrically defined values which excluded the experiences of newcomers to the United States. The cultural experiences of those from countries rich with traditions in other folk songs, other national anthems, other histories and other meaningful icons were certainly not listed.

However, the value of Hirsch's work was that it adopted a broad view of the types of human experiences and capacities that enable us to communicate effectively within a given culture. The literate individual was seen by Hirsch as one who could comprehend, recognise and express within the many shared meaning symbol systems of a culture, whether they be visual, verbal, gestural, aural or kinaesthetic. Hirsch's great fear was that young Americans were not familiar with the key symbols that shaped their destiny; not only were they unable to read and write effectively but they were unable to comprehend other key symbols many of which were found within the arts. The fear was that Americans were not familiar with their own culture, let alone that of others.

Illiteracy, Hirsch implied, is akin to alienation. All of us who travel to other countries feel alienated if we don't speak the language, don't know the customs of the people and cannot fathom the menu! However, most of us are only literate in one culture. Those who have moved countries and assimilated into other cultures have had to learn to read new symbols in order to 'fit in'. Those who live in bi-cultural or multi-cultural countries, as most of us do, either accept that there is one dominant culture or struggle with making choices about which language to use (for example French/Canadian). The lost communities in the melding of cultures are indigenous cultures which become dominated by the invading culture and expected to 'fit in'. White Australians, for example, expect Aboriginal people to learn western ways but make no effort to learn Aboriginal ways. Literacy is a culturally specific ability. Generally speaking we only expect people to be literate in one culture and perhaps we only feel literate in the culture/s that we claim as our own.

Visual literacy

While literacy may be culturally specific it is often said that visual images are universal; their meanings are said to transcend cultural barriers. Visual signs can certainly be read universally to indicate the danger of avalanches, school crossings and airport baggage terminals. However, even assumptions about the universality of these visual symbols cannot be made. In assuming earlier this year that a new company logo was simply a flamboyant squiggle, the Nike company hastily withdrew their new logo when it was identified as an Islamic word referring to God. What may be seen as a mere squiggle in one culture may be seen as a powerful symbol, and even written word, in another culture. International companies it seems, face a difficult task when choosing logos that are appropriate in all cultures. There is not a universal visual language, other than in areas which have become stereotypical or where a cultural has acquiesced to a dominant culture.

Within the field of the visual arts it is clearly apparent that the signs and symbols valued in one culture may be viewed quite differently by other cultures. Several years ago a group of visiting Chinese academics to Australia were shown a range of year 12 art works, only to be met by stony-faced silence. Clearly this group of highly qualified educators did not appreciate these 'abstract' works. In fact they clearly thought them inappropriate and inept! The qualities of abstract expression, subtlety of humour, parody and thickly applied paint, clearly contained none of the traditional values which these Chinese educators saw as the basis of 'good art'. The differing values were readily apparent and the Australian art educators wondered whether they would be able to discern 'quality' if shown work senior secondary Chinese students.

Seeing art in a visually crowded world

Clearly we live in a visual world and in all of our waking hours we are selecting what we should look at and how. Art is all around us. There is art on T-shirts, art on buses, art in streets and art in television advertisements. Paul Duncum has in fact argued that the 'visual arts are commonplace'. Duncum says that:

> The prevalence of images point to their ordinariness. The unavoidable and simple truth is that the visual arts are commonplace. Their very special importance lies in the fact that they are ubiquitous (Duncum, 1993, p.16).

In today's society we are bombarded with visual imagery. Magazines, television, film, advertising, display windows are all 'aesthetically produced'. Everywhere we experience colour and design. The visual arts have become an integral part of the consumer society. Artistic works are identified in terms of the product they sell; a Fred McCubbin painting provides the context for a 'Kit Kat' advertisement. Aesthetic judgments are made when purchasing commodities; aesthetic judgments are made in promoting commodities. 'The singular, scrutinizing steady gaze of the art critics is replaced by numerous fragmented frequently interrupted glances of ordinary people' (Duncum, 1993).

However, simply because we are surrounded by images in our daily lives does not mean that we recognise the visual world as art. To be able to see the visual world is not the same as being able to see and value art. If we were supposed to engage with all the visual images that we see in a day in the same way that we need to engage with art works, we would never cope with the visual bombardment that continuously confronts us.

In fact, being able to tell what is art and what is not art is a characteristic of the visually literate person. The artistically illiterate person, for example, may not recognise the concept that an object may become art simply by intention or change of context. Seeing a pile of bricks in a gallery the artistically literate person may recognise that the artist is saying something through this intended placement. However, the sceptic is likely to think that a pile of bricks is always a pile of bricks and be unable to see any art in the statement at all. The object, although visual, is artistically inert until an artist changes its role from inert object to art. The viewer in turn must perceive something of the artist's intention. If the viewer doesn't recognise that a deliberate artistic act has taken place, then the art work has not been comprehended.

Suzanne Langer makes the point that the commonplace world is not art. Art, Langer says, has a sense of 'otherness'. While art can represent the common and real world and may even be made from very commonplace materials or objects, art is clearly removed from the everyday. Andy Goldsworthy's sculptures may emerge 'naturally' as a path of sticks in a forest or a spiral of shells on a beach, but the intentional placement of objects is evident; we know that the arrangement has not been made by the forces of nature. We recognise that Goldsworthy has been there and nature has been ever so slightly transformed. As Langer says:

Every real work of art has a tendency to appear thus dissociated from its mundane environment. The most immediate impression it (ie the art work) creates is one of 'otherness' from reality (Langer, 1976, p.45).

All art, Langer says, is abstract (p.46); its content is only a 'semblance of a thing'. The power of art lies in the fact that it can given the illusion or a semblance of reality and that it can evoke in us a sensory response. In that sense, Langer claims that visual arts works have the capacity to tap our sensate life as they enable us to enter a world of 'virtual reality'. It seems strange that Langer used this term so many years before it became a buzz word in the field of computer technology. Of course, Langer recognised that art has always been about the creation of virtual reality. Even the minimalists saw that a black on black painting epitomised some form of reality.

'Reading' forms and images

When visiting the National Gallery of Victoria recently a group of students were asked their impression of the large, gilt framed 17th and 18th portraits that were hanging in the gallery around them. A student responded that he thought they were great photos. The education staff member asked him whether they were in fact photos and then guided the group to a realisation that these were in fact oil paintings on canvas, painted long before the invention of the camera. Without contextual knowledge we can easily misinterpret art works. Perhaps students of the

future will think that all pictures in galleries have been created on a computer. Students already find it difficult to comprehend that the works in the NGV are 'one off'. Students find it quite hard to realise that artists of the past did not have photocopiers, cameras and power tools. Being visually literate implies understanding the technology that was available to the artist being studied. Understanding the process is a key factor in art appreciation. The student who has worked in metal to make a piece of jewellery more readily comprehends the gold inlay scarab brooches of the ancient Egyptians.

A tertiary art education student of mine recently prepared a secondary art lesson based on Sidney Nolan's role in the Heidelberg school. I was alarmed to think that he had come through an undergraduate Fine Arts degree and yet had confused the Heidelberg School with Nolan's time at Heide (the home of John and Sunday Reed). I became aware that while students in Fine Arts courses are certainly more aware of contemporary art issues developed through subjects in critical theory, they have considerable gaps in their understanding of art history.

One key role of art education is to bring students into contact with the contexts in which art works were made. Without an awareness of the social and historical framework in which a work was made the viewer either fails to comprehend the work or simply infuses the work with his or her own framework. The art teacher attempts to take students on journeys into other contexts to build an understanding of how and why artists worked as they did in other times and places. The visually literate person is aware that the art that they look at is a product of its time and place. As art educators we set about helping students research the art of different contexts so that they can more accurately comprehend the symbolic statements that are embedded within the work. Literacy is art education involves guiding students to knowledge of past cultures and introducing them to processes that people used when different tools and equipment were available.

Visual and verbal literacy

In order to talk about art the art teacher encourages the student to become verbally literate in the language of art discourse. However, this does not mean that art works can simply be read like books. An art piece can not be read like a novel. Visual literacy does not function in the same way as verbal literacy. Language teachers need to be reminded that the things displayed in art galleries are not texts but art works. And these art works demand a different form of response to that of a novel. The image actually impacts on us much quicker than the word. The word is an abstract referent which often bears no resemblance to the thing it symbolises. However the visual image is direct and even though it may contain embedded symbols it is perceived immediately. In describing how we apprehend art works Rudolph Arnheim says:

> The dynamics transmitted by the image resonates in the nervous system of the receiver...And these actions are not just physical gymnastics, they are ways of being alive, ways of being human (Arnheim, 1989, p.26).

A literal reading of the narrative in an art work must not dominate the obvious sensory qualities that the work may contain. In fact in commenting on Paul Ziff's critical analysis of Poussin's

Rape of the Sabine Women Kerry Freedman (Freedman, 1996, p.103) suggests that Ziff was so concerned about analysing the formal composition of the work that he seemed blind to the fact that the image actually was a representation of a rape!

The visually literate person becomes engaged with art works because they convey meanings. The visually literate viewer recognises, identifies and resonates with key visual properties. While viewers bring their own context to the work and thus may interpret a work in their own way, they need to be informed about the context in which a work was made. Verbal language is a useful tool for sharing ideas, information and feelings about art but words can also kill an immediate sensory response. Csikszentmihalyi (1996) describes the sensation of intense engagement with an art work as 'flow'. Flow is the euphoric rush that we experience when we are so absorbed in some experience that time and other distractions are obliterated. The interesting thing about 'flow' in relation to preceiving art works is that we only see what we know how to see. In fact when faced with new images and forms we are often at a loss to know how to perceive them at all. We only have a 'flow' experience with art works when we resonate with the work and when there is a deep identification with the aesthetic properties or qualities of the work. Verbal language helps us to label, describe, analyse and interpret but the 'flow' experience is apprehended visually without words.

The essence of the visual art experience

Direct personal involvement in aesthetically oriented creative activity is now recognised as widely desirable at all ages. Those who participate in creative art activities may derive all or some of the following values: Increased willingness and ability to express themselves uniquely, improved emotional stability and mental alertness, improved concentration, interest span, patience, work habits and use of leisure time and an ability to see, understand and appreciate aesthetic values in literature, cinema, drama, poetry, music as well as painting and sculpture. Creative art expression is believed to be a natural birthright of the child. The important human values such expression affords makes it imperative that creative art experiences be made widely and regularly available, particularly during primary and early secondary schooling.

Making meaning in the visual arts

Cognitively based theories of aesthetic response demand certain conditions within the viewer, such as dispositions, expectations, analytic skills, studio proficiencies and so on (Clark, 1994, p.71). Many recent theorist have closely linked cognition and emotion rather than seeing these as separate functions. Parsons for example suggests that 'cognition gives shape to emotions' (p.108. 1986) and Goleman's book 'Emotional Intelligence' (1996) provides convinving arguments for the links between our sensory and intellectual processes. Eisner (1972) indicates that what we know determines how we respond and suggests six frames of reference that are brought into an aesthetic response. These are: Experiential, response focused upon how one is affected by the work; Formal, the physical structure of the work; Symbolic, meanings of symbolic elements affecting the viewer; Thematic, ways in which the theme is comprehended by the viewer;

Material, the application and the dynamics of the media; and Contextual, the nature of the environment in which the work is found.

Horner (1988) believes there are two phases in the aesthetic response. The first phase is an internal subjective phase, essentially non verbal in nature. This then proceeds to an external objective phase. The first phase consists of forgetting, which results in a fusion with the work, followed by remembering in which the journey into the work is recalled. The reflective process follows in which the viewer is made aware of one's desires and/or fears. Phase two is the external response where the non verbal becomes verbal. The viewer will describe or decontextualise the parts of the work, the structuring of patterns of space and time will emerge, followed by interpretation in which social discourse is explored and finally the assessing of the experience contextually leads to retro activity.

The fundamental importance of art is that it echoes or reflects the natural world of which we are a part. It allows direct unselfconscious experiences, experiences that involve reflective selfconsciousness, language symbolisation and abstraction:

> Art then can temporarily restore the significance, values and integrity of sensuality and the emotional power of things, in contrast to the usual indifference of our habitual and abstracted routine of practical living (Burnshaw, 1970).

Through the observation of art and the participation in the creating of artworks we can feel directly the impact of colour, texture, size or the power of the subject matter. We can internalise concepts, make judgments, debate issues and conduct an internal dialogue which will question values and preconceived notions. It is generally held that the purpose of artistic activity is to allow children an opportunity for self expression (Cox, 1992, p.6.). Art is also thought to serve as an important vehicle for children's creative development. Concurrent with the development of the child's creative development is the development of abstract thinking:

> No greater gifts can be offered by formal education than to facilitate critical minds that ask which images serve one's own interests and which need to be incorporated so that they do so, and also encourage people with inquiring minds which ask 'what is not shown (Duncum, 1993, p.3).

Essential to creating visual imagery is the use of symbolic representation. The visual artist takes an image from a known experience and reinterprets the experience by using a set of symbols that come from the individual's perceptual system. 'Symbol systems are extensions of specific natural human abilities and perceptual systems' (Duncum, 1993, p.7).

Language is the fundamental system of abstract representation. Considerable evidence suggests that visual images are our second most important symbol system (Duncum, 1993). Complex visual symbols enable humans to understand and interpret, to articulate and organise, to synthesise and to universalise their experiences:

> The very process of drawing a picture of something (say an animal) is already an

> act of separating it as an object from its immersion of the totality of the experience (Dissanayake, 1991, p.69).

Neissere states that 'perceiving is the basic cognitive activity out of which all others emerge (p.9) and Arnheim argues that vision is the perceptual system which contributes most to cognitive processes (Duncum, 1993, p.8).

It is generally accepted that feeling and knowing are both central to the creative process and the emotions we feel will impart particular understandings of the situations. Because feelings may be inappropriate the maker must learn when to trust them. The maker will be required to exercise judgment and often will be required to reject or accept elements from within the selected symbolic representation. Knowing involves the direct interaction of the maker with the environment and the re interpretation of that environment into a pictorial form which will contain meaning for the viewer. 'Instead of straining too hard to discover his inner self, the student should objectively study the outside world.' (Ehrensweig, p142.1967)

The symbolic image will contain unconscious linkages with prior experiences in both the maker and the viewer. Ehrensweig suggests that the artist's main social function might be to regain for the viewer the lost vividness of experiences by re activating deeper symbolic linkages (p.194):

> The process of symbol formation requires the symbolic image to interpenetrate with the undifferentiated matrix of image making (Ehrensweig, 1967, p.193).

Dewey believed that artistic perception and understanding are rooted in human convention and values:

> No matter how ardently the artist might desire it, he cannot divest himself of meanings funded from his past intercourse with his surroundings, nor can he free himself from the influence they exert upon the substance and manner of his present seeing (1934).

Expressed meanings are still therefore inherent in immediate experiences and there is a merging of past and present or indeed the known and the experience or current feeling. The non verbal expression of this becomes the image and the viewer perceives and relates to the image using past and present contexts.

Goodman (1968) referred to the use of symbols in two primary ways; denotation and exemplification. Ordinary descriptive symbols represented denoted objects or events in a direct manner, what they stand for. However other symbols could be used symbolically to refer to certain properties which mean the symbols function as samples which exemplify what they refer to (p.92). So the artist can communicate either the direct, observed experience or through particular use of colour, line, tone or mood can communicate a further level of non verbal thought.

In the artistic process the maker creates images in terms of symbols, drawing on both internal

and external influences. The maker connects ideas to make meaning and records their response to personal experiences in visual imagery. These images generally involve some personal narrative drawn from a wide range of experiences. The maker will use a reflective process to enhance and develop ideas and will often pursue a personal exploration of learning. The making usually involves some challenge with a variety of materials. The maker will share the work created as it exists with the viewer. There is a non verbal dialogue in which each participant will bring their own set of experiences and will resolve the abstracted problems with reference to that given set of experiences.

How can art education contribute to students' use of technology?

Visual artists have always pushed the limits of the available technology. Computers enable students to work in exciting new ways in the visual arts but they still need to make art using actual materials. While computer art and computer use will change art programs in schools, as David Hockney found after experimenting with new technologies for some years, in the end it was quicker to just pick up a pencil and draw a line. The computer is an extraordinary tool but images created on the screen are limited in scale; they have no texture, no real space, no smell and they are flat. Rudolph Arnheim reminds us that 'materials and vehicles used for artistic activity...have distinct character traits to which one responds... (Arnheim,1989, p.36). The artist is often responding directly to the world when s/he carves in wood, models in clay and stitches in fibre. Computers cannot replace direct experience with materials but they can enable us to design more effectively and write about art

Recent technological advances have meant that a greater number of people have access to virtual experiences. Students can call up visual images from galleries and museums around the world. CDROM products such as Microsoft Art Gallery direct the gaze of the viewer and provide a context for the viewing of art works and engaging in arts dialogue. The images can often be manipulated, cut from the package and isolated. Immediacy of contact with world wide experiences in art viewing collapses the world of art and provides armchair viewing. The reproductions are able to be called up and cancelled with the simple pressing of a key.

Images are easily scanned, original photographs can be combined with existing images to create the new image. Manipulation of images produce a new context that can be contrived and derivative. Slick advertising imagery is very seductive and brings into question whether the elements of feeling and knowledge are explored. It is also questionable that the choice of symbols come from the individual's perceptual system. Manipulative skills are developed with the use of various drawing packages. Tightly developed images can be produced which reflect the elements of design and follow aesthetic principles. In a study of elementary children's computer graphics by Wolhlwill and Wills (1987) the following observations were made:

- Almost all the children were given a procedure for preparing and entering a program of computing instruction, thereby equipping them with necessary control of the medium.

The authors were surprised that the children chose to use a variety of methods to create their designs:

- Some children developed designs that were representations of activities, ideas or scenes they had imagined (p.9).
- The children used the known experience to develop the task as set by the authors.
- The authors note that a number of the children seemed interested in telling a story.
- The story telling was consistent with varying degrees of a problem solving set (p.10).
- The authors suggest that the full potential for āpplying systems of computer generated imagery have hardly been recognised yet.
- The authors suggest the intricacies could best be suited to the intelligence of adolescents who have progressed into the early phases of formal operational thought (p.12).
- The authors also suggest that art education for the elementary school child should focus on stimulating the child's imagination.

The study reinforces the underlying need for the maker to combine the known with the unknown and reflects the place of the narrative and non verbal expression in the art world of young children particularly.

Art education and other areas of the curriculum

Duncum suggests that new alliances with subjects beyond the arts need to be formed. (p. 32) He suggests collaboration because other subjects have a higher status among educational decision makers.
However the visual arts are essentially the child's first non verbal means of communication with the
world. Through the child's images we are given an insight into the abstract thinking of the child. The
importance of the visual arts is hardly recognised (Duncum, 1993). They are often the mirror of society, they can reflect truth, distort truth, they can be used by political figures to manipulate or seduce
the community and they are the measure of the spirit within a society. All of these can be achieved
through the abstracted, non verbal symbols that occur in pictorial imagery. It is the artist who taps into
the consciousness of the community, who makes the connections and brings to the fore the viewers
own prejudices. Through art experiences students are given the opportunity to express

themselves in a
variety of modes so they can transfer their arts experiences into the rest of their lives.

Back to Top

Conclusion: The visual arts and meaning making

Arts educators endorse claims for skills transferability. Several theorists argue that the expressive arts
foster learning from the inside out suggesting that authentic learning changes behaviour and encourages
reflection. Arts activities, they suggest, enhance the child's ability to interpret symbols. The child then
becomes a meaning maker, a constructor, a discoverer and an embodiment of knowledge rather than a
passive recipient of someone else's ready made answers (Clark, 1994, p 67).

Why, if these theories are so powerful, have we allowed the visual arts to become marginalised? Why
is the image of the artist one of the eccentric? Why are students in schools given the feeling that the
arts are the extras, and other components of their education so much more important? Art educators
generally believe in the importance of creative and individual thought. A dangerous proposition for a
systematised educative process.

Back to Top

References

Abrahamson, R. (1987) 'Henry Shaefer Simmerns Concept of Gestalt Artistic Forms and Cultural Inferences with clear Expressions of Such Forms'.

Arnheim, R (1989) Thoughts on art education, Los Angeles, The Getty Centre for Education in the
Arts.

Broudy, Harry S (1987), The role of imagery in learning, Los Angeles, The Getty Centre for Education in the Arts.

Burton, Judith et al, 1988 Beyond DBAE: The case for multiple visions of art education, USA, University council on Art Education.

Chalmers, F. Graeme (1996) Celebrating pluralism: Art, Education and Cultural Diversity, Los Angeles, The Getty Education Institute for The Arts.

Clark, R. (1994), 'A Canadian Perspective Ontario Society for Education through Art', in Art Education, Ontario, Alymer Press.

Cox, M. (1992) Children's Drawings, London, Penguin.

Csikszentmihalyi, Mihalyi (1996), Creativity: Flow and the psychology of discovery and invention,
New York, Harper Collins.

Dewey, J. (1934) Art as Experience, New York, Capricorn.

Dissanayake, E. (1988) What is Art For? Washington. University of Washington Press.

Duncum, P. (!993) 'Beyond the Fine Art Ghetto. Why the Visual Arts are Important in Education' in
Studies in Education and the Arts. Geelong. Deakin University Press.

Duncum, Paul (1993) Beyond the Fine Art Ghetto : Why the Visual Arts are Important in Education Studies in Education and the Arts, eds. Emery, van Ernst & Stevens, Geelong, Deakin University Press.

Ehrensweig, A. (1967) The Hidden Order of Art. London. Weidenfeld and Nicholson.

Eisner, E. (1985) 'Why Art in education and why art education'. Beyond Creating: The place for art
in America's Schools. L. L. Duke (ed) Los Angeles. Getty Centre for Education in the Arts.

Freedman, Kerry (1996) Postmodern art education: An approach to curriculum, Reston, National Art Education Association.

Goleman, Daniel (1996) Emotional intelligence, London, Bloomsbury

Goodman, N. (1968) Languages of Art. Boston, Bobbs-Merrill

Hirsch, E. D. (1987), Cultural Literacy: What every American needs to know. Boston, Houghton Mifflin.

in Visual Arts Research, Spring . Vol 13, No. 1

Langer, Suzanne (1976) Feeling and form, England, Routledge and Kegan Paul (sixth impression).

Parsons, M.(1986) 'The Place of a Cognitive Approach to Aesthetic Response' in Journal of Aesthetic Education. No. 20

Perkins, D. (1981) The Mind's Best Work., Cambridge. Harvard University Press.

Design Literacy

Process and Product

Keith Russell, Kathy Grushka, Howard Middleton

The Concepts of Design, Technology and Craft

Design

Technology

Craft

Design Language

Integration of Design and New Technologies

Meaning in Design and its Place

Bibliography of Works Cited and Further Readings

Keith Russell (B.A., PhD) lectures in Concepts of Design at the University of Newcastle. He is a widely published poet, critic and philosopher of design. His major research interests are in the aesthetics of objects and the affects of identity. He is the Director of the Centre for Aesthetic Research and runs World Wide Web projects with local Infants, Primary and High School students.

The Concepts of Design, Technology and Craft

Design

While Design, as an academic domain, is very recent, its history, is as ancient as any of the arts. Universally, the concept of "design" is used to recognise human intention, purpose and function

in actions (design process), objects (design products) and thoughts (design value). This cluster of meanings can lead to ambiguity so that it is difficult to determine "what is being promoted or taught" under the auspicious title of Design (Dilnot, 1989, p.233).

We can speak of "designing a design" and we can speak of "designing an art-work" but we cannot speak of "arting an art-work". Design, as a concept, is both more pervasive and yet less clearly defined than other nouns/verbs of making. Potentially, this openness to meaning is a strength. Because of its universality, design, as a complex language, is ideally placed to assist, along with the other arts, in the promotion of new modes of communication and perception made available by new information technologies.

Through its implication in popular culture (graphic design), the manufactured things of every-day life (industrial design) and the things of our own making (craft), design, as an area of study, offers a structured access to the rapidly changing teaching and learning worlds that technology makes available.

Technology

If technology is the structuring of a skill or form of knowledge (techne) in a process that can be transmitted and replicated, then design is the cognitive ground of this structuring. Unless the design of a thing/process can be abstracted from the thing/process and formalised, the thing/process remains the secret of the maker. While, historically, the maker was also the user, technology developed through the modification of a process according to the understanding of technique that the user/maker could bring to the process. This history of the term "technology" would seem to be adequate for much traditional technology.

In the case of recent technologies, it might at first appear that the original sense of technique has long gone from the current usage of the term "technology". For many of us the word "technology" has come to mean "something that we use but do not understand". The more we don't understand it, then the higher the technology must be. This confusion is both at the level of production (how it is made) and at the level of product (how it might be used). Often it appears that these secret devices are directing us rather than that we are directing them. We did not ask for their invention and often we have difficulty describing their place in our existing world.

It would seem that the pure possibilities of electronics (or other physical sciences) are what define the possibilities of the new information technologies rather than the skills of an artisan, master tradesman or designer. This feeling of alienation from our own inventions arises out of the novelty and immaturity of the technology and not out of any recent change in the dynamics of technological development. While we may not know or understand the technology of making a violin, equally we may not know or understand the technique of a violinist and yet, we can all appreciate the music that is made between violinist, violin and audience.

The view of computers, in particular, as semi-autonomous objects, has shifted our attention from technology as an integrated activity requiring technique to the devices that facilitate activity. We

are in danger of mistaking the butter churn for milk technology, or of attending to the manufacturer of butter churns as the developer of better butter. Now that the design feed-back loop of users and makers has come into play, computers, as integrated systems of hardware and software, are beginning to display the possibilities of a designed (technique-based) technology.

To appreciate this feed-back connection between the design industries and the new technologies, we need to expand our view of the relationship between design and technology. It is not simply that design, in much of its professional practice, has embraced the new devices. Design has also redefined the uses of these new devices through establishing the grounds of a rhetoric of information technologies. Such a rhetoric was being called for over a decade ago to bridge the apparent gap between technologists and designers.

> There is a general attitude that technology is only an applied science, rather than a part of design art, and this approach has led many to abandon hope that technology can be seriously influenced and guided by human values and a discernment of beneficial ends in the human community. A suitable theory of rhetoric in design would be one in which technology is viewed fundamentally as a rhetorical problem, integrated within the perspective of a broader design art, however radical that may seem to technologists. The theory would suggest productive ways in which closer connections between technology and design art could be established. Buchanan, 1985, pp. 91-92

The clearest evidence of this rhetoric, in the case of the new information technologies, can be seen in the rapid mingling and cross-fertilisation of print-based and World Wide Web-based layout and advertising styles. Given the extraordinary limitations of Web-based layout, designers have had to re-define their language to maintain the design values inherited from the print medium. The rapid ascendancy of these design values is an indication of the strength of the underlying design language.

While the actual values being transmitted through this integration may seem to be simply those of pattern, order and form, the re-emergence of these design features points to a deeper cultural connection between technology and design. Whether this re-forming (reformation?) is indicative of a new-modernism or another primitive "closed system" is yet to be seen. The important point is the clearly observable crystallisation of designed form in the new information processes. Still, the urgent questions of value remain.

> Culture and design no longer are forces that slowly but heroically move the world toward salvation through logical and ethical radicalism. They are mechanisms of emotions and adaptations of changes that fail to drag the world toward a horizon, they only transform it into many diffuse diversities. Progress no longer seems to be valued; instead, the unexpected is valued. The grand unitarian theorems no longer exist, nor do the leading models of the rational theologies. What exists is a modernity without illuminism. We are witnessing a definitive and extreme secularisation of design, within which design represents itself and no longer is a metaphor for a possible unity of technologies and languages. Branzi, 1985, p.37

The unity of languages and technologies called for by Branzi maybe found in aspects of the neoprimitive or tribal. Branzi points to the closed nature of primitive cultural structures:

> The communication of the primitive, indeed, achieves its maximum efficiency inside a closed system: It operates by archetypes and myths, working inside a circuit of users capable of perceiving its metaphorical keys and subject to its specific energy. Outside these conditions, the culture of the primitive is nothing but a formal repertory that currently is heeded and used by a large number of operators, artists, and designers. Branzi, 1985, p.37

The World Wide Web has many of these features and yet through establishing a market-place of many closed-systems, it has allowed for styles that transcend domains. The World Wide Web is an example of narrow-band technology achieving a universality simply through unrestricted access. Each circuit is closed but each circuit is linked to an open-ended exchange. The model is one of correspondence that knows no limit: any number of users can join the repertoire. The tribe may well have its rituals but more and more the language of design is structuring these rituals through form, pattern and order.

Craft

When the new technologies are reviewed from the broad cultural perspective of use and possible use, they reveal a pathway to the all but forgotten domain of craft. While each new device in the information technologies area can be seen as a response to an efficiency demand in the information industries (typesetting, photography, printing etc.) the resulting devices have often ended up in the hands of the domestic user. In some cases it has been the domestic device that has overtaken the production houses (page layout, pre-press).

This democratising of technology has meant that the general education system is now in a position to participate in the avenues of making made available by the new technologies. At one level this is simply an extension of previous opportunities. Semi-professional equipment has long been available to schools and semi-professional productions have been achieved. At another level, the new technologies provide students with an opportunity to do "real work" such as produce designs for large scale manufacture (CAD/CAM), or produce computer masters for studio quality pre-press, or produce digital masters for audio/video, or produce CD master, or produce commercial quality work for the World Wide Web.

While each of these outcomes is exciting, such "real work" has always been available through the setting of achievable projects and through the educational decision to focus on the acquisition of personal (craft) skills that are foundational and substantial in the learning of the individual. The new technologies simply offer a timely opportunity to recall the deeper learning aspects involved in all the arts subjects.

At the pedagogic level, there are teaching and learning decisions to be made. There are advantageous aspects to World Wide Web technologies. The multi-media features of the WWW

allow for cross subject involvement. The range of traditional learning activities that are to be found on the WWW increases daily. Beyond the hype, the WWW has made available a broad range of basic skills including: text editing, graphics manipulation, animation and sound production. Each of these skills can be achieved, at a professional level, with very little cost beyond the initial capital equipment outlay. The virtual objects are environmental safe, take up no real space and are open to view and use from anywhere. These same virtual objects are, in all important respects, craft objects.

Design Language

Design, chiefly, is the disclosure and subsequent development of order, form and pattern. It is a fundamental literacy that finds its process in all areas of knowledge. Its language is found in all the arts. In this conceptual sense, the language of design offers a way to develop common concerns between many areas of the current curriculum.

As a process (poetics), design is often reduced to a list of stages such as: assimilation, investigation, development and communication. While each of these stages may be plotted on a flow chart to display the progress of a project, there are very real limitations in these prescriptions (see Alexander, 1965; Lawson, 1983). More and more sophisticated versions of such re-constructions tend to confuse the design language with the language that accounts for the process. Closer inspection of designers at work points to the design process as a fundamental way of being/doing. Lawson, in his testing of designers and scientists came to these conclusions:

> The essential difference between these two strategies is that while the scientists focused their attention on discovering the rule, the architects were obsessed with achieving the desired result. The scientists adopted a generally problem-focused strategy and the architects a solution-focused strategy. Although it would be quite possible using the architects' approach to achieve the best solution without actually discovering the complete range of acceptable solutions, in fact most architects discovered something about the rule governing the allowed combinations of blocks. In other words they learnt about the nature of the problem largely as a result of trying out solutions, whereas the scientists set out specifically to study the problem. Lawson, 1983, p.32

As a product (aesthetics), design offers a language of objects that is open to ethnographic, sociological and phenomenological observation (see Bachelard, 1964). Here design offers its objects minus the preciousness of fine art works. To be a design object there must be a system of reference that is at the same time a system of use. At one end of the spectrum we may place fine art objects as objects that lack an intended direct use; that is, the painting of a chair is not to be used as a chair, its reference is indirect and mediated by the aesthetic distance that holds it within its frame (art for art's sake). For a chair to be an object of design attention it must be able to be used within its own directly announced intention as a chair. The degree to which the chair as design object plays with this intention is the degree to which it is shifted towards the fine art end of the spectrum. In the case of designer-objects, those objects which overtly state themselves as having been designed, this playfulness is overt if not dominant. That is, there is a dynamic

tension between fine art objects and design objects that becomes apparent at the level of intended use. In the case of the design object, the chair retains its chairness as its direct reference. To take another example, a door handle which failed to directly announce itself as a door handle would be in danger of not functioning and therefore of not being a design object.

As a value (ethics), design both offers a history of failure and a language of possibility. While design can quickly turn green, the underlying ideologies of desire and consumption remain to be addressed. The growth of design as a feature of the everyday world of objects can be seen as one successful outcome of the efforts of the Moderns (such as the Bauhaus) to change the everyday world of objects. This growth can also be seen as the failure of these efforts to transform society. Design has succeeded in displaying value but it has not succeeded in defining value in this display. Potentially, the language of design, as value, can assist in the social review of the world we are manufacturing.

> Repackaging and redesigning are . . . part of a socio-economic system that assumes limitless growth and a continual state of desire. Consumer-led design in a market economy goes far beyond the idea of meeting human needs: it seeks to create and constantly to stimulate human desire. The modern consumer's condition is characterised by dissatisfaction and a consequent state of longing. A continual stream of 'new' goods is produced to satisfy temporarily the desires which the market has, if not created, then certainly kindled. Whiteley, 1993, p.3

Integration of Design and New Technologies

Because of its newness as an area of educational concern, we can confuse design concerns with contemporary and new concerns. For example, if we look at design as inherently involved with recent technologies we are in danger of restricting its language concerns to those of something like "techno-literacy". This is not to deny that an important aspect of design in education should be to instruct the young in the uses of current and ancient technologies such as water systems and agriculture. A better knowledge of waste systems especially might be seen as a desirable feature of a broad design-based cultural literacy (see Purcell, 1994). With an informed understanding of pre-existing and new technologies, we are all in a better position to explore the future implications of our designed world.

Equally, the language of design should not be looked at simply from the restrictive vantage of information online. Recent attention to learning online has promoted a new kind of skill, "mediacy":

> Literacy and numeracy are important skills for students to master. To adequately prepare our students for thought work in an information society, a new skill - mediacy - is becoming increasingly important. Mediacy refers to the ability to access, share, and disseminate information online.

While the traditional research uses of accessing information might fall inside the general description of traditional literacy, the new aspects of sharing and disseminating information online imply a broader understanding of traditional literacy than "mediacy" would seem to allow. In announcing the rhetorical concerns of design, the intention should be to expand the traditional concept of literacy rather than to make claims for new literacy skills. If we look at the work of Charles Eames, for example, we can see design as a complex, multi-media, information rich language of social and cultural concern that offers insight into both the objects of its attention (topics/themes) and its process of making (information design) (see Neuhart et al, 1989).

Compared to the information installations of Eames, WWW pages are brief (if open-ended) introductions to knowledge. The precise skills required for WWW publication are quite trivial, even mundane, when compared with those of learning to speak, read and write. Where these new online skills become educationally useful is in the development of higher order literacy skills, such as critical thinking. Through an involvement with mixed- and multi-media, aesthetically rich projects, students are able to explore the meta-cognitive rhetorics of design production.

The virtual objects of the WWW exist in a cultural space that is yet to be defined beyond the nascent design features of order, form and pattern. In a sense, the WWW is yet to establish its grammar or syntax. The disclosure of meaning, in this space, offers the excitement of a new stage for human communication. Through its complexity and ambiguity, the existing language of design can offer a guide and style manual.

Meaning in Design and its Place

The intentional, purposive and functional aspects of design necessarily involve design in a very broad range of meaning concerns. Through the client relationship, design is specifically involved with aesthetics (ways of experiencing), ethics (ways of being) and poetics (ways of making). The pervasive nature of design allows design languages to be taught across the curriculum. The unavoidable presence of design (as products) requires design to be interpreted across the whole community.

Without a formalised approach to a multi-disciplinary model of design instruction, the potential openness of design can become limited to the professional concerns of current work places. For example, the exciting possibilities of information communication can be restricted to pre-press aspects of graphics and the global concerns of materials and markets can be restricted to production aspects of industrial design. Through a close focus on professional outcomes, the craft aspects of design can be lost.

The social world we inherited was designed; the world our children will inherit is being designed. Education allows us the opportunity to design design.

Bibliography of Works Cited and Further Readings

Alexander, Christopher (1970) *Notes on the Synthesis of Form* (Cambridge, Massachusetts: Harvard Uni Press)

Bachelard, Gaston (Jolas, Maria trans.) (1969) *The Poetics of Space* (Boston: Beacon Press)

Branzi, Andrea (1985) "*We Are the Primitives*", Mondo, June 1985, quoted here from Margolin, Victor (ed.) (1989) Design Discourse: History, Theory Criticism (London: Uni of Chicago Press)

Buchanan, Richard (1985) *"Declaration by Design", Design Issues: History, Theory, Criticism, Vol. 2*, no. 2, pp. 4-22, quoted here from Margolin, Victor (ed.) (1989) Design Discourse: History, Theory Criticism (London: Uni of Chicago Press)

Dilnot, Clive (1989) *"The State of Design History, Part II: Problems and Possibilities"* in Margolin, Victor (ed.) *Design Discourse: History, Theory Criticism* (London: Uni of Chicago Press) pp.233-250

Kao, John (ed) (1996) *The New Business of Design: The Forty-fifth International Design Conference in Aspen* (NY: Allworth Press)

Lawson, Bryan (1983) *How Designers Think* (London: The Architecture Press)

Margolin, Victor (ed.) (1989) *Design Discourse: History, Theory Criticism* (London: Uni of Chicago Press)

Margolin, Victor; Buchanan, Richard (eds.) (1995) *The Idea of Design: A Design Issues Reader* (London: MIT Press)

Myerson, Jeremy (ed.) (1994) *Design Renaissance: Selected papers from the International Design Congress, Glasgow, Scotland 1993* (Horsham, West Sussex: Open Eye Publishing)

Neuhart, John; Neuhart, Marilyn; Eames, Ray (1989) *Eames Design: The Work of the Office of Charles and Ray Eames* (London: Thames & Hudson)

Oedekoven-Gerischer, Angela; Scholtz, Andrea; Medek, Edith; Kurz, Petra (eds.) (1989) *Women in Design: Careers and Life Histories since 1900* (Stuttgart: Hands Der Wirtschaft)

Pile, John F. (1979) *Design: Purpose, Form and Meaning* (Amherst: Uni of Massachusetts Press)

Pursell, Carroll (1994) *White Heat: People and Technology* (Based on the BBC TV Series) (London: BBC Books)

Taylor, Marck C.; Saarinen, Esa (1994) *Imagologies: Media Philosophy* (London: Routledge)

Thackara, John (ed.) (1988) *Design After Modernism: Beyond the Object* (London: Thames and Hudson)

Whiteley, Nigel (1993) *Design For Society* (London: Reaktion Books)

Yelavich, Susan (ed.) (1993) *The Edge of the Millennium: An International Critique of Architecture, Urban Planning, Product and Communication Design* (NY: Whitney Library of Design)

Dr Keith Russell
Department of Design
University of Newcastle 2308